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EDITORIAL NOTE.

During the continued absence of Mr G. W. Shirley on active service this volume has been seen through the press by Mr R. C. Reid and Mrs Shirley, who regret that, owing to the difficulties which at present beset all publication, several valuable papers have had to be held over to the next volume.

The Society has to express its obligations to the Society of Antiquaries, Edinburgh, Dr Robert Munro, and Mr W. G. Collingwood for the loan of a number of blocks used to illustrate this volume.

The Society is also indebted to the Cumberland and Westmorland Antiquarian and Archæological Society for permission to reprint the Rev. F. W. Ragg's paper on "Strathclyde and Galloway Charters," and for the use of certain type in connection therewith.

The Editors will be glad to receive any information that may assist them in compiling a Roll of Honour of the Society.

It must be understood that as each contributor has seen the proof of his paper the Society does not hold itself responsible for the accuracy of the data given therein.

Members working on local Natural History and Archæological subjects should communicate with the Hon. Interim Secretary.

Papers may be submitted at any time, preference being given to original work on local subjects.

Enquiries regarding the purchase of *Transactions* and payment of subscriptions should be made to the Hon. Treasurer, Mr M. H. M'Kerrow, 43 Buccleuch Street, Dumfries.

Exchanges, Presentations, and Exhibits should be sent to the Hon. Interim Secretary, Ewart Public Library, Dumfries.

Proceedings and Transactions

of the

Dumfriesshire and Galloway

Natural History & Antiquarian Society.

SESSION 1916-17.

17th November, 1916.

Annual Meeting.

The Annual General Meeting of the Society was held at 7.15 p.m.—Mr G. M'Leod Stewart in the chair.

Minutes of previous meeting were read and approved of. Apologies for absence were read from the Hon. President, Mr Hugh Gladstone; Mr Charles Ralston, Mr J. C. R. Macdonald, Mr James Flett, Colonel Thorburn, and Mr R. C Reid.

Mr M. H. M'Kerrow, the Hon. Treasurer, reported that he had in hand £45 4s 7d, which would be exhausted on payment of printing of the *Transactions* now in the press.

Mr G. M'Leod Stewart, Hon. Librarian, gave an exhaustive report on the additions to the Library by exchange and by presentation.

Mr R. C. Reid, who was editing the volume of *Transactions* for the past session, wrote explaining that the book was in the printers' hands and would be ready shortly.

The Interim Secretary gave a resumé of the meetings throughout the past session.

It was agreed that the various office-bearers be continued without change for another session, with the addition of Mr J. C. R. Macdonald to the Council.

Provost Arnott moved that the hour of meeting be now changed to 7.30.

This was seconded by ex-Provost Turner and carried.

Votes of thanks were accorded to the office-bearers for their services.

Animal Intelligence.

By Sir HERBERT MAXWELL, Bart.

I am afraid that when you have heard what I have to say to you to-night you will complain that I have done no better service than to lead you into a labyrinth and leave you to find your own way out of it. I am far—very far—from claiming to have struck a fresh clue to the delimitation of instinct and reason. All I propose is to review some of the more suggestive points in the evidence collected by many careful observers and to indicate the direction in which scientific opinion seems to tend.

The problem has resolved itself into three main branches :—

1. Are animals, other than man, born, and do they continue through life unconscious automata?
2. If they are conscious, are their consciousness and intelligence the physical product of certain chemical and organic changes taking place in the growth of the eggs, embryo, or young creature, and therefore spontaneous in the sense that muscle, bone, and blood develop by the spontaneous multiplication of cells?
3. Is the conscious intelligence exoteric? In other words, is it the consequence of an external and superior mandate or suggestion, acting upon a suitable physical receptacle?

1.—*Are animals born, and do they remain unconscious automata?*

Nobody who has systematically watched the behaviour of the young of birds and other animals is likely long to entertain the belief that, even if they are hatched or born as

unconscious automata, they continue so for more than a very brief period—that they are, as it were, delicate and ingenious pieces of clockwork, performing with regularity those functions for which they are designed and adapted, so long as they are regularly wound up, *i.e.*, fed. Experience, whereof the effects are manifest in every animal sufficiently highly organised for man to interpret its behaviour, and which may exist in the grades of life so low as to baffle human scrutiny—experience, I say, and instruction, whereof very few, if any, vertebrate animals are insusceptible,[1] are undoubtedly agents upon animal behaviour predicating a mental process such as could be implanted in no mere machine. To take a very homely illustration: no amount of repeated battering will prevent a humming top bumping itself against furniture and other obstacles when it is set spinning; but one recognises the effect of experience upon the conduct of animals so low in the scale of life that it is difficult to believe that any sentient creature can be totally devoid of conscious volition.

In 1873 Dr Mobius reported to the Society of Natural Science for Schleswig-Holstein some observations by Herr Amtsberg of Straisund on the behaviour of a large pike. Being confined in an aquarium, this fish wrought such havoc among other fish in the same tank that Herr Amtsberg caused it to be separated from them by a sheet of plate-glass. Thereafter, every time the pike made a dash at one of its neighbours, it received a severe blow on the nose. The predatory instinct was so strong that it took three months to convince the pike that every attempt upon the life of these small fish resulted in pain to itself. Thereafter it let them alone, even when, after six months, the glass partition was removed. Experience had taught it that these particular fish could not be attacked with impunity, whereupon its intelligence came into play to control its predatory instinct.

[1] It is a popular belief that guinea pigs are not susceptible to instruction, and evince no recognition of one human being as more familiar than another. Probably this is no more than sheer assertion, founded on the phlegmatic behaviour of the animal in captivity, and not put to the test of experiment.

although, when new fish were put into the tank, it went for them at once.

Animals higher in the scale than pike, which rank low in the class of fishes, show more precocity in profiting by experience, even when deprived of the advantage of parental example and guidance. To some chicks reared in an incubator Mr Lloyd Morgan threw caterpillars of the cinnabar moth. These larvæ are conspicuously marked with yellow and black rings, and have a flavour most distasteful to birds. The inexperienced chicks seized them greedily, but dropped them at once, wiping their bills in disgust, and seldom could be induced to touch them a second time. Next day brown loopers and green cabbage-moth caterpillars were put before the little birds.

"These were approached with some suspicion, but presently one chick ran off with a looper and was followed by others, one of which stole and ate it. In a few minutes all the caterpillars were cleared off. Later in the day they were given some more of these edible caterpillars, which were eaten freely; and then some cinnabar larvæ. One chick ran, but checked himself, and, without touching the caterpillar, wiped his bill—a memory of the nasty taste being apparently suggested by association at the sight of the yellow and black caterpillar. Another seized one and dropped it at once. A third subsequently approached a cinnabar as it crawled along, gave the danger note, and ran off."[2]

Now in these instances the superior precocity in turning experience to advantage shown by very young chickens over M. Amtsberg's pike may be accounted for, not only by the greater mental capacity of the higher vertebrate, but by the keener physical sense of the warm-blooded animal.

Instances like these might be cited in abundance to disprove the hypothesis that fishes and birds are unconscious automata. More perplexing are those displays of effective consciousness and caution which, if founded on experience, indicate that experience must have been congenitally transmitted.

[2] *Habit and Instinct*, by C. Lloyd Morgan, page 41.

I went a-fishing one day in the Mimram, a pretty little chalk stream in Hertfordshire. From a little fishing-house on the bank I noticed several trout rising in a reach of the stream meandering through a meadow below. I made ready to approach them with all the craft I could muster. There happened to be three or four cart-horse colts careering about in the meadow, thundering along the water edge close to the rising trout, which showed not the slightest alarm or intention of desisting from the capture of ephemeridæ. My host's keeper, solicitous for my comfort, sent a tiny maiden of some seven or eight summers to drive away the colts. This she did effectively, but her appearance on the bank made every trout quit the surface and flee for shelter. In fisherman's parlance, she had "put them down." Now, these trout, of mature age, no doubt had acquired enough experience to fight shy of an angler and all his works, and, though fearless of cart horses, would be apt to scuttle off at the first gleam of his rod. But how came they to recognise this child as an immature specimen of Homo sapiens? Neither anglers nor poachers are in the habit of plying their calling in pinafore and petticoats. She can scarcely have been an unfamiliar apparition to the trout, for her father's house was close at hand, and she must have played many times upon that flowery marge. If the trout recognised her, they could not associate her with any experience of hurt or harm. On the other hand, it is still more difficult to account for their recognising this child as belonging to a hostile species and the cart horses to a harmless one through intelligence imparted by or inherited from other fish. One cannot assign limits to the measure of warning and instruction which animals can convey to the young that they rear; but trout undertake no parental cares. They shed their ova in the shallows, and, long before these are hatched into sentient creatures, the parents have dropped back into the deeper waters, and if ever they meet their own offspring in after life are very apt to regard them as legitimate food.

It was written of old :—"The fear of you and the dread of you shall be upon every beast of the earth, and upon every fowl of the air; upon all that moveth upon the earth, and

upon all the fishes of the sea;" and this, in truth, has come to pass. Nevertheless, judging from Mr Lloyd Morgan's observations of the chicks of domestic fowls, wild ducks, pheasants, partridges, moorhens, and plovers reared in an incubator, the dread of man, as such, is neither innate nor congenital in highly organised animals. Neither does it precede man into parts of the earth whither he has not previously penetrated, witness the confidence, sadly misplaced as a rule, shown in him by penguins and other birds in polar regions. until they got to know him better.

In weak species, however, the instinct of concealment does seem to be inborn and congenital, for Mr W. H. Hudson has recorded that, when he had the egg of a jacana (*Parra jacana*) in the palm of his hand, " all at once the cracked shell parted, and at the same moment the young bird leaped from my hand and fell into the water. . . . I soon saw that my assistance was not required, for, immediately on dropping into the water, it . . . swam rapidly to a small mound, and, escaping from the water, concealed itself in the grass, lying close and perfectly motionless, like a young plover."[3]

Mr Lloyd Morgan could detect little sign of shrinking from his hand in plovers newly hatched in an incubator, although " they lay in the drawer with bill on the ground and outstretched neck in a well-known protective attitude." Other birds evinced some instinctive shrinking at first, which passed away almost immediately, so that all the species " would run to my hands after a very short time, nestle down between them, and poke out their little heads confidingly between my fingers."

From this it appears that, while the protective instinct is congenital and automatic, the specific dread of man is purely imitative or imparted, or both.

Of all the groups of creatures mentioned in the above-quoted text from Genesis, none have more cause to entertain dread not only of man, but of all other living creatures more powerful than themselves, than fishes. However exhilarat-

[3] *The Naturalist in La Plata*, page 112.

ing life on the ocean wave may be, life under the waves is one continual frenzied struggle to devour or to escape being devoured. Few, indeed, and feeble are vegetarian feeders in the sea; almost every marine animal divides its time between pursuit of and flight from its neighbours. Nevertheless, deeply as the habit of fear must be ingrained in the nature of these creatures, some of them profit very readily from reassuring experience, and exhibit a degree of mental receptivity which removes them very far from the category of sentient automata.

The cod, for instance, occupies a somewhat higher place in the animated scale than the aforesaid Mimram trout, yet there is hardly any creature, not even the herring, which runs so poor a chance of finishing his natural term of life. A very moderate-sized mother cod will be delivered of about one million eggs in a single accouchement. If one per thousand of these were to produce a codling that should attain maturity there would soon be room for very few other fishes in the North Atlantic. But the cod casts its million ova adrift in the ocean to be carried hither and thither by the currents, and the chances against any one ovum, larval fly, or codling escaping the rapacity of other predacious animals must be many thousands to one. One might suppose that heredity and experience would have combined to render the habit of fear and suspicion ineradicable in the survivors. But that is not so. The cod is amenable to confidential intercourse with man, who is certainly not the least formidable of its enemies.

In the extreme south-west of Scotland, where the attenuated promontory ending in the Mull of Galloway projects far into St. George's Channel, there is a remarkable rock basin, partly natural and partly hewn out of the cliff, into which the tide flows through an iron grating. This is the Logan fish pond, where for many generations it has been the custom to imprison fish taken in the open sea, especially cod, to be fattened for the table. If you look quietly over the enclosing wall on the landward side you will see a circular basin about thirty feet in diameter, fringed with algæ, and so deep that the bottom cannot be seen through the

clear, green water. No sign of life is visible, save perhaps a few coalfish or pollack-whiting cruising recklessly round the narrow limits, or two or three sea perch routing among the seaweed. But the sound of the key turning in the door lock and of the keeper's feet upon the wooden stair rouses the pond into vehement turmoil. Great brown forms arise from the depths; broad tail fins lash the surface, and gaping mouths appear in all directions. Experience has taught these codfish to associate the sound of the keeper's key and footfall with meal-times, and so lulled their natural dread of man that they will eagerly take food from his hand. Some years ago (I know not whether the same may be witnessed now) the aged lady who acted as keeper had imparted further instruction to one or more of these fish. One, at all events, a great cod of about 12 lb. weight, suffered her to lift him out of the water in her arms and place him in her lap, there to receive a meal of mussels or soft crab shoved into his gullet with a wooden spoon. Truly, one could hardly imagine a performance more at variance with the instincts and habits of a pelagic fish.

However fully convinced one may be that the lower animals are endowed with conscious and volitional energy, it can hardly be questioned that many of their most definite and characteristic actions are performed in compliance with a motor impulse independent of consciousness or volition; and this not only in extreme youth but at all periods of maturity.

To select an example first from juvenile behaviour—the homely proverb, "It's an ill bird that fouls its own nest," is derived from the cleanly habits of nestlings. Mr Lloyd Morgan received a spotted fly-catcher, about a day old, with eyes not yet open. . . . It was placed in a small chip box lined with cotton-wool, and kept in a corner of the incubator drawer. So soon as it had taken a morsel or two of food at intervals of about thirty to forty minutes, it would energetically thrust its hindquarters over the edge of the box and void its excrement. Jays and other young nestlings also show this instinctive procedure. It would be grotesque to credit a blind nestling with conscious and deliberate hygienic precaution. We ride airily out of the difficulty by pronounc-

ing it to be a " provision of Nature " that young birds should act in this way for the safety of their own health. I have, indeed, heard this behaviour on the part of young herons described as a deliberately defensive measure. If one climbs a tree in a heronry and approaches a nest containing young birds, they poke their posteriors over the side and discharge a copious and malodorous volley upon the intruder. Such action has all the appearance of design; but it is almost certainly no more than the natural automatic action of young herons undergoing visceral disturbance through fear or excitement.

That is an example of very simple functional activity unconsciously performed; but it can hardly be doubted that some of the most complex and delicate performances of animals very far down in the animated scale are unconsciously discharged, or at least undertaken under a mandate with which they automatically comply. The silkworm once only, and at an immature stage of existence, spins an elaborate cocoon wihch no amount of practice could improve. The evidence of design is not to be mistaken; but who can suspect the builder to be also the architect? At a given period of its growth the motor nerves of this sluggish larva set in action machinery specialised to work up material which has been unconsciously stored. The action is wholly independent of the creature's volition. It must spin, whether it would or no, and it can exercise no discretion in the style or shape of its cocoon.

In the case of spiders, we have the action of an adult creature instead of a larva; yet the process seems to be none the less independent of volition. The design is so much more ambitious than the silkworm's, the structure so much more beautiful and complex, and so closely in accord with the principles of human engineering that one has more difficulty in dissociating it from the independent ingenuity and conscious skill of the worker. Yet the common garden spider (*Epeira diadema*) probably acts unconsciously in setting about to spin her web. She (for it is only the female that spins) does not reflect before setting in motion the mechanism which she has inherited from a remote ancestry, though she must

exercise some discretion, involving a mental process, in the choice of a site for her web. She does not gaze with hungry longing upon the flies disporting themselves in the sunshine, speculating how, being wingless, she can capture those toothsome, flying creatures. Indeed, it is probable that she cannot see them, for the visual powers of spinning, as distinguished from hunting, spiders are believed to be very feeble, being compensated for by an extraordinary refinement of the sense of touch. She simply sets to work to apply the specialised mechanism and material with which she is endowed to the purpose for which they are co-ordinated. Although cut off by the period spent as an egg in a cocoon from all parental instruction or example, she is at no loss for a plan. Innate functional impulse, which is probably the right definition of what we term "instinct," co-ordinate with certain specialised organs, directs the creature to the unconscious performance of certain definite acts without previous practice or experience. First the foundations are laid, in the shape of lines enclosing the area to be occupied by the web. From this circumference the radii or stays are drawn to the centre, whence the spider works outwards, stepping from stay to stay and laying down a thread in a wide spiral to act as scaffolding for the finished structure. Finally, having arrived at the limits of the operative net, she retraces her steps, working inwards in a much closer spiral, laying the transverse threads at the proper distance, and devouring, as she goes, the original scaffolding threads which enabled her to perform the work.

If it is difficult to dissociate such a consummate piece of engineering from the operation of a keen intellect, still more so is it to regard the infinitely greater complexity of the snares produced by certain other spiders as the mere product of functional automatism. Nevertheless, that seems to be the true explanation. If the spider's web were the outcome of the creature's individual ingenuity and intelligence there certainly would be manifest some variation in the design among millions of webs by different individuals of the same species—some imperfection in first attempts. No such variation—no such imperfection—can be detected. There is no "'prentice hand" among spiders. The first web of the

spider is of normal design and perfect construction. Destroy it, and the creature will execute another of exactly the same design, no better and no worse adapted for the capture of passing flies.

Very different is human performance directed by personal intelligence. Suppose that the child of a herring fisher or a rabbit-catcher had been left an orphan at five years old and removed from the scene of his father's industry to the care of some relatives in Glasgow. Circumstances prevail to bring him back to his birthplace as a young man and to make it expedient that he should earn a living by the same industry as his father did. Motor or functional co-ordination will not help him much, for he can neither swim like a herring nor burrow like a rabbit. He sets his intelligence to work, seeking instruction from adepts in the craft, and then he must obtain suitable apparatus which he could not himself construct, in the use of which he will certainly be very unskilful at first. Even so, he has to avail himself of the example of contemporary fishers and trappers, who are themselves indebted for success to the accumulated experience and progressive inventions of by-gone generations. But the net spread yesterday on your rosebush by Epeira is of precisely the same design as those which her ancestors suspended in the primæval forest when our ancestors were spearing salmon with bone harpoons and shooting deer with flint-tipped arrows.

The instinctively functional habits of those strange gallinaceous fowls, the Megapodidæ—the mound-birds or brush-turkeys of Australasia—are so complex as to seem necessarily to imply intelligence putting experience to practical use. Primarily, no doubt, their domestic economy may be due to the functional activity of certain highly specialised organs, but they have anticipated human ingenuity by the construction of vast incubators, those of some species being co-operative. Several hens of the Australian Megapodius tumulus combine to form a mound of earth and green foliage, which they scrape together with their huge feet, walking backwards through the forest and kicking the stuff behind them. It is recorded that one such mound measured 150 feet in circum-

ference. It is stated that this was not the work of one season, but that fresh material was added each spring before a fresh laying took place. The Megapodius is a bird no bigger than an ordinary fowl; but the Australian brush-turkey (*Tallegallus Lathami*) is nearly as big as a turkey. I have had the advantage of seeing these birds and examining their work in the Duke of Bedford's woods at Woburn Abbey. Mr Savile-Kent speaks of the Tallegallus as nesting co-operatively; but the four or five mounds which I saw at Woburn seemed each to be appropriated to a separate pair. Having piled together a mass of vegetable matter, the hen lays her eggs therein, which are then buried in fresh material, and left to be hatched by the heat engendered by fermentation of the decaying leaves. Nor does she lay them in the ordinary sense of the word, on their sides. If she did, and neglected to turn them every day, they would assuredly be addled. Forasmuch as she has not the faintest intention of re-visiting the eggs, they are contrived of a peculiar elongated shape, like a soda-water bottle without the neck, and are set on end in the material of the mound. The chicks are hatched in due time, and are often so fully fledged on escaping from the shell as to be able to take flight at once and are able to find without guidance the food suitable for their needs. Hence there is no more possibility of the young birds acting upon instruction or in imitation of their parents than there is in the case of young spiders, seeing that the old birds evade the labour of personal incubation and guidance of the chicks. "Yet," says Mr Savile-Kent, "the mound-constructing instinct is so strongly ingrained by heredity that young birds taken fresh from the nest and confined under favourable conditions have at once commenced to construct mounds after the characteristic manner of their tribe."[4] In doing so, no doubt these young and inexperienced creatures are acting under a stimulus communicated from the lower brain centres along the efferent nerves to legs and feet congenitally developed and highly specialised for a peculiar function. So far the birds may be regarded as unconsciously exercising

[4] *The Naturalist in Australia*, page 33.

innate proclivity, which, like other idiosyncrasies, attains its highest activity at the season of reproduction. When the adult Megapode combines for the first time with others of its species to construct and stock the incubating mound it is obeying the law, or at least complying with the habit, which has become binding upon its kind. Its acquaintance with the obligation may be considered functionally instinctive; but it involves a performance of unusual complexity. Compliance with an established custom is comparatively easy to understand—at all events, it may appear to be so—but speculation goes adrift in attempting to explain how the custom became established. No matter how big the feet and powerful the shanks of the primæval Megapode may have been—no matter how much unconscious satisfaction it may have derived from exercising these organs in piling mounds—how did it hit upon the labour-saving secret that fermenting vegetable substance would supply heat enough to bring the eggs to the hatching? Ordinary evolutional analogy seems to provide no key to fit these complicated wards, neither is one tempted to credit the fowl with knowledge that fermentation generates heat. It is possible that, seeing how prone all gallinaceous fowls are to scraping, the original Megapodes may have so excelled in that activity as to have thrown together a fortuitous heap of rubbish, which generated a perceptible heat, thereby tempting them to deposit therein their eggs. It is well known that mother birds of most genera never leave the nest during the period of incubation for so long a period as shall expose the eggs to chill. Their absence, in our climate at least, is always exceedingly brief. So the Megapode may have found by experience that she could safely leave her eggs in the rubbish mound for a much longer period than in an ordinary nest; until at last, finding the irksome duty of personal incubation to be superfluous, she abandoned the practice.

It will be observed that this hypothesis assigns to the mother Megapode a high degree of intelligent observation and sagacious application of experience. It may be compared with the discovery made long since by human mothers that the substitution of the bottle for the breast in rearing

their babes exempted them from the necessity of foregoing social pleasures and from close attendance in the nursery. But the human mother has been careful to transmit the discovery to posterity. The enigma remains how successive generations of Megapodes are able to put the experience of their progenitors into practice, seeing that the mother birds not only evade the tedium of personal incubation, but entirely neglect the education, instruction, and nurture of their young; which, fortunately for ourselves, human mothers have not learnt to do.

From the examples given above, chosen almost at random from thousands of others which present themselves to every observer of nature, some material may be gathered for an answer to the first question propounded above. It is an answer very far from authoritative, explicit, or final, consisting mainly of a summary of what is probable. It must consist, indeed, of no more than this, that all animals arrive at birth endowed with congenital automatism co-ordinate with a specific inherited organic mechanism, ready to discharge certain functions without the intervention of conscious volition. But part of the inherited mechanism consists, at least in animals above the lowest grades, of an apparatus fitted to receive external impressions conveyed along the afferent or incoming nerve-currents, and to respond to them by transmitting energy along the efferent or outgoing nerve-currents. In short, these animals are supplied with an intellectual and volitional equipment which, however long it may remain ineffective after birth, is capable of and destined for various ranges of energy and complexity, and differs only in degree and development from the human organ of intelligence. Animals may be judged as coming into the world as sentient but unconscious automata, but with mental machinery ready to respond in a greater or lesser measure to experience.

2. *Are the consciousness and intelligence of animals the physical product of chemical and organic changes taking place in the growth of the egg, embryo, or larva, and therefore spontaneous in the sense that muscle, bone, and blood develop by the spontaneous multiplication of cells?*

"If," says Mr Lloyd Morgan in his fascinating treatise on *Habit and Instinct*—"if on the one hand it cannot be said without extravagance that an egg is endowed with consciousness, and if, on the other hand, it cannot be said without extravagance that the day-old chick is an unconscious automaton, there must be some intervening moment at which this consciousness has its origin. When is this, and how does it arise? If we attempt to answer this question with anything like thoroughness, we shall open up the further question—From what does consciousness take its origin? And this would lead to a difficult and, for most of us, not very interesting discussion." Be it interesting to many or few, herein lies enfolded the secret hitherto most jealously guarded from human scrutiny—an enigma to which no student of nature can be indifferent. None but a physiologist—which, of course, I have not the slightest pretence to be—need presume to offer any help to its solution; but any intellect of moderate training may derive advantage from recognising and examining the nicety of the problem. Modern lawyers have pronounced that, from the moment of conception, the human embryo has the nature and rights of a distinct being—of a citizen—and accordingly the law deals with one who procures abortion as a criminal. Plato and Aristotle sanctioned the current opinion of their day that "it was but a part of the mother, and that she had the same right to destroy it as to cauterise a tumour upon her body."[5] Between these two extreme opinions perhaps lies the truth, namely, that at a certain stage of development the fœtus in one of the higher animals acquires individual, probably sentient, though still unconscious, automatism. This is

[5] Lecky's *European Morals*, i., 94 (ed. 1869).

hardly a suitable place for the discussion of a theme of this kind. Let us take a bird's egg, as more convenient to handle.

Consciousness may seem too big a term to connote the chick's sensation of imprisonment within the shell, and its impulse to escape, as indicated by hammering and cheeping; though it might pass without comment as explanatory of the action of the adult hen, thrusting her neck vigorously through the bars of the coop and straining for liberty. But Mr Hudson has observed concerning several species of birds in widely separated orders that, before the shell of the egg was cracked, the chick within, hammering and "cheeping" in its attempt to get out, would cease instantly and lie perfectly still when the parent bird sounded the note of danger, but would resume operations when she uttered a reassuring note.[6]

From this it appears that the consciousness of the unhatched chick is sufficiently active to exchange oral communications with a mother outside the shell. In fact, the chick has been born before it is hatched, and it is suggested that it must be regarded as sentient and conscious from the moment it pierces the air-chamber within the egg and becomes a lung-breathing creature.

The young of gallinaceous and certain other fowls display upon hatching a much more precocious intelligence than other nestlings. They are able to run at once, the Megapodes, as aforesaid, being actually able to fly at once and cater for themselves. Their motor organs are so well developed as to respond immediately to their congenital automatism; whereas those birds which are hatched blind, and depend upon food being brought to the nest by their parents, acquire the power of locomotion slowly and more

[6] *Naturalist in La Plata*, p. 90. Mr Lloyd Morgan has distinguished at least six notes of different significance uttered by domestic chicks, namely, the gentle "piping," expressive of contentment; a further low note, expressive of enjoyment; the danger note of warning; the plaintive "cheeping," expressive of want; a sharp squeak of irritation; and, lastly, a shrill cry of distress, as when a chick gets separated from the rest of the brood.

or less awkwardly. Similar want of uniformity prevails among mammals. Horses, deer, sheep, and cattle are born with some power of locomotion, with sight, hearing, etc., in active operation, and with mental powers in exercise. The rabbit is born blind, and, though sentient, scarcely conscious for ten or twelve days after birth; a period corresponding to about a year of the human span of life. Puppies and kittens also are born blind and helpless; and man, though born with open eyes, remains helpless and dubiously conscious for many months.[7]

Again, certain animals which in an early stage of existence may possess a dim power of reflection, and exercise volition in locomotion and the quest for food, pass through a subsequent comatose and unconscious phase. Thus a caterpillar falling into the middle of a road sets off at top speed for the nearest verdure. A few weeks later it loses all power of locomotion, and perhaps all consciousness, although the motor nerves of the chrysalis cause muscular movements when it is touched. The chrysalis of the death's-head moth (*Acherontia atropos*) squeaks audibly when handled.

It seems, then, impossible to indicate precisely the period of existence when consciousness begins. Although the lion cub is born with legs and eyes, the eaglet with wings, these legs, eyes, and wings cannot be put to use for long afterwards; but the foal in the strawyard, the plover on the moor, exercise both legs and eyes from the first. The common Mayfly (*Ephemera danica*) spends three years as an unlovely larva, living in mud, swallowing much and matching the mud in colour. At the end of this obscure, not to say obscene, period of probation, after passing through

[7] In the *Personal Reminiscences of Sir Frederick Pollock*, vol. ii., pp. 188-9, the following incredible passage occurs:—"Dugald Stewart was once asked what was the earliest thing he could remember. He said it was being left alone by his nurse in his cradle and resolving to tell of her as soon as he could speak." My sole object in quoting this is to give an example of the kind of uncritical rubbish has to be cleared away before any progress can be made in penetrating the supersensory mystery.

several trivial, yet critical, phases, it suddenly appears as a delicate, exquisitely graceful winged creature, endowed with magnificent power of flight, which it puts to immediate use without the preliminary of a trial trip. It baffles our sense of purpose to understand why all the tedious and ignoble years of preparation should not be the preface to prolonged exercise of perfected faculties. The pathetic truth is that the Mayfly seldom survives a second or third sunrise after becoming a perfect insect. Flight, love, reproduction, and death—all are enacted within the space of a few hours. The surface of the water will be thickly strewn with the wreckage of the pretty creatures that rose from its depths but yesterday; for eleven months to come it may be that not a single Mayfly will dance in the glade that was so lately dim with a mist of them.

Seeing, then, how irregular is the period that elapses between the birth of animals and their attaining control of the motor faculties, it may be understood that similar uncertainty must surround the question how soon the brain, or its equivalent in the lowest grades, supplies any creature with consciousness or intelligence. From the precocity of instinctive activities, such as was exhibited by Mr Hudson's young jacana, there may be inferred a corresponding forwardness in the birth of intelligence, because animals which are soonest thrown upon their own resources must be readiest to exercise their wits or disappear from the scene of life.

The growth of the organ of intelligence may be assumed to be spontaneous and its powers and functions congenital; but it does not seem certain, as is popularly supposed, that the cardinal difference between the mental powers of man and those of the lower animals is that the first are capable of indefinite range, whereas the second are stationary within fixed limits. It is possible sometimes to note a forward movement in the intelligence of individuals very low in the organic scale, with corresponding effect upon the habits of the race. Perhaps in no creatures are the habits and actions more rigidly stereotyped than they are in bees; yet the

following instance of novel behaviour on the part of humble bees seems to indicate progressive intelligence.

It is many years since I first noticed that the blossoms of the blue sage (*Salvia patens*) in my garden in Scotland had all been bitten across the throat just above the stiff calyx. Upon examining flowers of the same species in a Berkshire garden, I found that they were intact, though there were plenty of humble bees about, and so were those in a Scottish garden not twenty miles from my own. Now this sage is a native of Mexico, and possesses a beautiful structure to secure cross-fertilisation. The beak of a humming-bird or the proboscis of a moth, inserted into the tube of the flower, presses on a lever which causes the anthers to descend from their position in the upper lobe of the corolla in such a manner as to deposit upon the bird's head or insect's back a mass of yellow pollen, part of which is sure to adhere to the stigma of the next flower visited. The honey glands of the sage are very productive, but the tube of the flower is narrow and difficult, prohibiting the passage of our substantial bumble bees. My suspicion fell upon these as the burglars, although they were equally plentiful in all the three gardens referred to, and the flowers had only been injured in one of them, because I had already observed that the bumbles treated the long spurs of yellow toadflax in similar unscrupulous fashion. My suspicion was confirmed by detecting a bumble in the act upon a blue salvia.

It may be objected that, after all, here is evidence, not so much of intelligence as of a keen scent for honey and a sharp pair of jaws. Quite so; but then why has the practice not become universal in the bees of all gardens? Moreover, in the summer of 1902, I found that the bumbles in my own garden had improved upon their earlier practice. For several years, the incision was made at the front of the throat of the flower, where the diameter of the tube is greatest. It seems to have dawned upon the bees that the shortest way is the best, because now they invariably bite through the side of the tube where the diameter is smallest. Yet in all the years that have elapsed since the introduction of the blue sage from Mexico, it is only some bumble bees

that have devised a summary access to the honey-glands, and of these bees, only a few have discovered the easiest method of entrance. Moreover, each generation of bees has to make the discovery for itself, for no bumble bee survives the winter to impart instruction to the coming generation,

3.—Is the conscious intelligence exoteric? In other words, is it the consequence of external and superior mandate or suggestion, acting upon a suitable physical receptacle?

This question leads upon ground upon which the light of scientific evidence has scarcely fallen as yet. In those remarkable chapters of the Book of Job, the 38th and three following ones, wherein the Lord answers Job out of the whirlwind, there is a great deal of reference to matter most interesting to the zoologist. They should be read, for lucidity, in the Revised Version :—

The wing of the ostrich rejoiceth.
But are her pinions and feathers kindly (or like the stork's)?
For she leaveth her eggs on the earth,
And warmeth them in the dust,
And forgetteth that the foot may crush them,
Or that the wild beast may trample them.
She is hardened against her young ones, as if they were not hers;
Though her labours be in vain, she is without fear;
Because God hath deprived her of wisdom.
Neither hath He imparted to her understanding.[8]

Here the author of life is considered naturally as the source of consciousness, nor is any other source likely to suggest itself to one who feels that there must be a designing, controlling, and directing head of the universe. To expunge that factor from our speculations only lands us in darker perplexity. Yet of the nature of that Controlling Head, "whom no man hath seen or can see," and of the means whereby He may communicate mandates or inspire

[8] Job xxxix., 13-17.

intelligence, we have nothing in the shape of evidence.[9] Wherefore it may seem idle to propound a question to which no answer can be forthcoming. Howbeit, man's curiosity is insatiable; a systematic and resolute attempt has been undertaken to fathom the abyss of supersensory phenomena. The late Mr Frederick Myers applied a disciplined intellect to the collation and analysis of hyperphysical experience. He was no dreamy enthusiast, subordinating his critical faculties to prepossession or emotional preconception; he was an advanced and erudite evolutionist, versed in the limitations of scientific inquiry, and applying its method to the elucidation of matters which most men of science dismiss either as illusory or outside and beyond the range of research. Few have been found so daring as to follow Mr Myers over the threshold of his laboratory, or even to grasp the reality of the enigma to which he addressed himself—not venturing to hope for a solution, only to detect a path which might lead to one; nevertheless, none who is conscious, however dimly, of the presence of a psychical problem, or who has speculated, however inconsequently, upon the phenomena of sympathy, suggestion, will, trance, and automatism, can fail to perceive in Mr Myers's posthumous volumes[10] the direction in which advance must be made, if the road is not inexorably barred to human penetration.

The inquiry is concentrated upon the spiritual part of the human animal. "Human personality, as it has developed from lowly ancestors, has become differentiated into two phases: one of them mainly adapted to material or planetary; the other to spiritual or cosmic operation;" and he proceeds upon the assumption that the first is the "self," of which every human being, from the West Australian savage to the veriest mondaine, is conscious; and that the second is a subliminal self, withdrawn from normal consciousness, below or behind the natural man or woman, distinct from the workaday intellect, and beyond the control

[9] Doctrine—plenty of it; dogma—enough and to spare; but of evidence in the strict sense, not a jot.

[10] *Human Personality and its Survival of Bodily Death* (2 vols.).

of the will except so far as the individual may deliberately suppress its monitions.[11] Now, I have neither the wish nor the power to pronounce whether Mr Myers's conclusions are soundly deduced from accumulated and well-sifted evidence, or whether they should be dismissed as plausible and seductive hypothesis. But I will go so far as to suggest that, supposing Mr Myers to have touched a clue which may lead to proof of the existence of a subliminal self—the receptacle of the spirit of man—and that this spirit, as has been firmly believed by many persons in all ages, is sensible of and obedient to the promptings, injunctions, and warnings of an external power, further research may identify in creatures lower than man a subliminal self, similar in function and relation, though inferior in range, to that of man. Herein might be traced to their source the compliance of all animals with the rules which regulate their behaviour and habits; the secret impulse which causes the chaffinch to adhere, generation after generation, to one type of nest and the rook to another; and the impalpable currents of affection, fear, hate, and other psychical forces, which act independently of the intellect.

It is difficult to explain the co-operative instinct of dogs as the mere outcome of co-ordinate, congenital activities. Through what avenue has a dog derived a sociable impulse so inveterate that, even when it is segregated from its own kind and adopts man as a comrade, it can do nothing alone? There are depraved dogs which will go hunting and marauding alone, but they are very rare; and perhaps are acting under some perverse suggestion that has found its way to their subliminal conscience. As a rule, dogs will only hunt in couples, in packs, or singly when associated with a human master or mistress. From the stateliest deerhound to the puniest lap-dog, none will take exercise alone; provide an acceptable human companion, and the dog will travel all day. And suppose that it should ever be proved that dogs act according to

[11] The most primitive races act in the belief that there is part of a man's being beyond his body and his mind. Some of them dread suddenly rousing a person from his sleep, lest his soul be wandering, and, being unable to return in time, death should ensue immediately.

the mandate imposed upon their kind by a superior power, conveyed through a channel hitherto inscrutable, how could animals lower than dogs—hermit crabs, for example—be declared incapable of receiving similar supersensory stimulus?

In justice to Mr Myers' memory, let it be said plainly that he never lent himself to any such hypothesis. On the contrary, his whole treatise is confined to human personality, and, among human beings, only the elect, as it were; those who have begun to realise their latent privileges. He compares the process of supersensory development to the primitive stages of animal evolution, when the pigment spot on the skin of some rudimentary organism first became sensitised to light, and the creature received a novel sensation.

The frontier between human beings and other creatures can only be drawn dogmatically and, so to speak, irrationally. Their characteristics and actions blend imperceptibly. Rather than accept Mr Myers' exclusive doctrine, it is easier for minds accustomed to ponder upon the behaviour of animals to be frankly teleological, and to admit the probability of a Supreme Being and His invisible ministers communicating decrees through a medium of which none is more than dimly and speculatively conscious.

Assuming a First Cause, instinctive activities in the lower animals may be regarded as the comparatively simple and intelligible results of forces initiated by him, acting unerringly in prescribed directions by means of co-ordinate organs modified by evolution. It is in accordance with the plan of nature that, in their performance of instinctive activities, certain insects should unconsciously take an indispensable part in the fertilisation of flowers specially adapted to take advantage of their visits. An extreme instance infinitely more bewildering presents itself when the preservation of the race of both insect and plant depends upon the insect acting with as much circumspection and precision as could be shown by a human cultivator. Such is the well-known behaviour of the yucca moth (Pronuba yucasella). This insect haunts exclusively the flowers of the yucca, and, collecting pollen from one blossom, kneads it into a pellet which she carries by means of specially enlarged palps in her flight to another flower.

Here she pierces the pistil and deposits her eggs among the ovules or unfertilised seeds, and then swiftly runs to the top of the pistil and pushes the pollen-pellet into the wide mouth of the stigma. Observe, that without this interchange of offices between insect and plant, the race of each would cease to exist. It has been proved that the ovules cannot be fertilised unless pollen, preferably from another blossom, is intentionally inserted into the funnel of the stigma; if they were not so fertilised they would afford no food for the grubs of the ministering moth. When all goes well, the grubs eat about half the ovules, leaving a hundred or so to ripen as seeds, and to perpetuate the herb which is essential to the existence of the moth. It is difficult to recognise merely sentient automatism in the means by which this inter-dependence of host and guest is maintained, the action closely resembles that of effective consciousness. Yet if it be extravagant to attribute to the moth an understanding of vegetable physiology, what is left but to speculate upon the source whence the race of Pronuba derives the impulse directing each individual female moth to go through the very same complex performance? "Amid the mysteries," wrote Herbert Spencer, "that become the more mysterious the more they are thought about, there will remain the one absolute certainty, that we are ever in the presence of an infinite and eternal energy, from which all things proceed."

Among those who have devoted their lives to probing the enigma of animal intelligence, none has done so with more scrupulous industry in experiment and vigilant research than the late Henri Fabre. His years were prolonged so far beyond the usual span that it was his privilege, through reiterated observation, to check, recast, and, in some cases, to revoke his earlier impressions and conclusions. Focussing all his penetrating wits upon the insect world, he not only placed on record a detailed description of the routine behaviour of many genera and species, but also submitted to intense scrutiny the actions of individuals when placed in unfamiliar environment and abnormal circumstance. Fabre's opportunity for this study was so favourable and prolonged—he turned it to such admirable purpose by scientific method and untiring patience,

that I am tempted to wind up this vaguely speculative paper by quoting a few sentences from his "Memoires Entomologiques":—

"Facts speak so loudly that I do not hesitate to translate their evidence as I understand it. In insect mentality we have to distinguish two very different domains. One of these is instinct properly so-called, the unconscious impulse that presides over the most wonderful part of what the creature achieves. . . . It is instinct alone that makes the mother build for a family which she will never see; that counsels the storing of provisions for the unknown offspring; that directs the sting towards the nerve-centres of the prey and skilfully paralyses it, so that the game may keep fresh; that instigates, in fine, a host of actions wherein shrewd reason and consummate science would have their part, were the creature acting through discernment. This faculty is perfect of its kind from the outset, otherwise the insect would have no posterity. . . . It is not free nor conscious in its practice any more than is the faculty of the stomach for digestion or that of the heart for pulsation. . . . But pure instinct, if it stood alone, would leave the insect unarmed in the perpetual conflict of circumstance. No two moments in time are identical; though the background remains the same, the details change; the unexpected rises on every side. In this bewildering confusion, a guide is needed to seek, accept, refuse, and select. . . . This guide the insect undoubtedly possesses to a very manifest degree. It is the second province of its mentality. Here it is conscious and capable of improvement by experience. I dare not speak of this rudimentary faculty as intelligence, which is too exalted a title. I will call it discernment. . . . So long as we confound acts of pure instinct and acts of discernment under the same head we shall fall back into those endless discussions which embitter controversy without bringing us one step nearer the solution of the problem. Is the insect conscious of what it does? Yes and no. No, if its action is in the province of instinct; yes, if the action is in that of discernment."[12]

[12] *Bramble Bees and Others*, by J. Henri Fabre, translated by A. Texeira de Mattos. 1915.

30th December, 1916.

Chairman—Sir JAMES CRICHTON-BROWNE, F.R.S., LL.D.

The Ruthwell Cross in its Relation to other Monuments of the Early Christian Age.

By W. G. COLLINGWOOD.

The Ruthwell Cross (Fig. 1) is unique, as a design never exactly repeated; but it is only one of a class of monuments which must be studied together if any single example is to be understood at all. In this paper an attempt is made to condense the history of these monuments into a few pages, and to find the place of the Ruthwell Cross in the series. The illustrations, except Figs. 3, 29, 31, and 33, are from drawings by the writer, in some cases restoring fragments to suggest their original place in the design; for without such restoration fragments are meaningless. The blocks of Figs. 9, 18, 20, 22, 23, 26, 27, 29, 32, and 34 have been kindly lent by the Yorkshire Archæological Society; those of Figs. 17 and 30 by the Thoresby Society; those of Figs. 11, 12, 24, 28, 31, 33, and 36 by the Cumberland and Westmorland Antiquarian Society; and those forming Fig. 3 by the Dean and Chapter of Durham, through Mr Thos. Caldcleugh. For these loans thanks are returned.

Stones bearing the sign of the cross were not unknown abroad in the early Christian age, but there is no instance of the free-armed and ornamented cross-shaped monument until we come to the series now to be discussed. In Britain, pre-Anglian cross-marked monuments are represented by the rough Chi-Rho stones of Penmachno (North Wales), Whithorn, and Kirkmadrine, 5th to 7th centuries A.D. At Maughold, Isle of Man, are forms connecting these with Anglian monuments; but if they are really the parents of the tall cross, links to complete the evidence are wanting.

In the north there were no skilled stone-carvers (after the Romans had gone) until the building of decorated churches by St. Wilfrid and Benedict Biscop—St. Andrew's, Hexham,

begun 672; St. Peter's, Monkwearmouth, 675; St. Paul's, Jarrow, consecrated 684. The cross set up by King Oswald at Heavenfield in 635 was of wood (Bede, *H.E.*, iii., 2), perhaps suggested by the crosses of Columban Iona, where Oswald was educated (according to Skene, *Celtic Scotland*, ii., 154; and Adamnan, i., 1, seems to support the statement). At the time the crosses now seen at Iona had not been made; those mentioned by Adamnan appear to have been wooden, like all the early missionaries' crosses. But these, and especially Oswald's "sig-becun," *standard of victory*, are likely to have been imitated in stone, when stone-carving became possible by the importation of craftsmen in 672 and later.

Among the relics of St. Wilfrid's Church at Hexham are parts of a slab (one piece at Hexham, two at Durham) carved with naked figures, animals and scrolls. I follow Professor Lethaby's example (*Archæol, Journ.*, lxx., 157) in trying to restore these together, though my attempt comes out different, owing to a difference in measurements (Fig. 2). Commendatore Rivoira thinks this slab a work of Wilfrid's time (*Lomb. Arch.*, English edition, ii., 143); to me it looks like Roman work from Corstopitum, whence Wilfrid's builders took other stones. But it seems to show that decorative carving was used in the church. Its style, distantly derived from such work as the Ara Pacis Augustæ of B.C. 15, is followed in the Hunter relief at Jarrow; and this slab, or other such, may have served as the first suggestion for the use of figure-scrolls in Anglian art.

Some years, however, must have passed between the introduction of this kind of ornament into ecclesiastical work in Northumbria and the invention of the tall cross, to which it was applied. That the work was finely executed from the beginning—and we have no rude or tentative examples leading up to it—seems to show that it was, at first, some architect's fortunate idea, upon which trained carvers were employed. The remains and their distribution indicate two early centres, one at Hexham and one more to the east; and the invention was probably made towards the close of the 7th century. The motives of patterns and the use of the chisel were imported, but not the general design of the cross as such; no foreign

workmen could have brought these designs ready-made from abroad, for no such crosses are known in early Continental art.

The Hexham school is represented by the famous Acca Cross (Fig. 3), now at Durham, but almost certainly the gravestone of bishop Acca, who was buried at Hexham in 740 between "two crosses of stone, ornamented with admirable carving," as Symeon of Durham says (*Hist. Reg.*, 740). Rivoira, who has upset many early dates formerly given to our relics, is of opinion that this cross may be of the middle of the 8th century (*Lomb. Arch.*, ii., 143). Its design is already on the way to a florid development of the simple Hexham motives, seen in the shaft now at the Spital, Hexham (Fig. 4), which is much more severe in treatment, and looks like an earlier work. But on one side it bears a Crucifixion, not unlike that at Ruthwell, which has been thought to mark a later period. Now, there are over twenty crucifixes on crosses of the 9th and 10th centuries in Northumbria, showing that the subject became common, in very various forms of treatment of drapery and attitude. But the same variety is seen in still earlier work—*e.g.*, 7th century Syrian bronze, fully draped (figured in Forrer, *Reallexikon*, p. 428); 7th or 6th century silver reliquary from Birka, Sweden, rudely "stylised," apparently with loin-cloth (*ibid.*, p. 877); 6th century Monza, full tunic; 6th century Achmim, Egypt, nimbed figure between sun and moon, long drapery (*ibid.*, p. 427); 6th century gold brooch, Rosenberg collection at Karlsruhe, nimbed figure between sun and moon and two thieves, full drapery (*ibid.*, p. 427); 5th century, Sta. Sabina, Rome, naked figure with loin-cloth; 5th or 6th century, ivory box in the British Museum, naked figure nimbed, with loin-cloth (*ibid.*, p. 427); early classic gem, British Museum, naked figure with loin-cloth on a T-cross (*ibid.*, p. 427). These suggest that there is nothing impossible in dating the Hexham and Ruthwell crucifixes to the 8th century.

The style of art arising at some other centre than Hexham, perhaps at one of Benedict's foundations, is represented by a group of crosses in county Durham and north Yorkshire, probably contemporary with the earlier Hexham work. They connect with St. Cuthbert's coffin, now at Durham, and pre-

sumably made in 698, bearing chisel-sketches of saints and angels with runic and Roman lettering of the type which may be assigned to the period. These figures are less elaborate than the carvings on stone, which could be carried farther in the way of finish; but they show the same subjects and the same feeling as can be seen on a shaft at St. Andrew's, Auckland (Fig. 5). And together with the angels, and saints AND(reas) and PA(ulu)S, this shaft bears scrolls of leaves and fruit, with animals and an archer, all very carefully drawn and executed, without the ready-made conventions of a fully developed style. It looks like a rather early work of its kind.

At Croft, near Darlington, a cross-shaft (Fig. 6) shows animal scrolls on two sides, and on the third a very dainty leaf scroll; but on the fourth, a plait ingeniously woven of one continuous thread into an elaborate pattern. Now just as the scrolls are from foreign art, so are these plaits; they were common to the ornament of the period throughout Christendom. But they changed from age to age, and their changes as seen in Italian architectural carving supply means for checking the development in Britain. A few instances, given in Fig. 7, with Rivoira's dating, will show how the simple braids of Roman ornament, imitated in stone-reliefs in the sixth century in Ravenna work, became more elaborate in the plait of about 737 at Cividale (*Lomb. Arch.*, i., 102), formed, like the Croft plait, of one continuous strap. About that time a second member is seen, making an easier design, in the Valpolicella figure-of-8 threaded on an open twist (*ibid.*, i., 144); and the surface-covering in linked squares at Toscanella, commoner in the 9th century, is dated by Rivoira as early as 739 (*ibid.*, i., 126). Entering the 9th century, we find the contrast of rectilinear and curved forms at Cattaro, 809 (*ibid.*, i., 157), and at St. Apollinare in Classe, Ravenna (*ibid.*, i., 139); that is to say, the design, as an intellectual feat, is simplified and greater picturesque effect is gained at a small expense. In the 11th century we have plaits of many members —easy to draw, as compared with the early entanglements of continuous cords or straps—at Montefiascone (*ibid.*, i., 212), and the repetition at St. Ambrogio, Milan, of ring-knots

(i., 205, 233-4)—a very easy pattern, though requiring neatness and skill to draw with regularity.

This development of plaits only follows the usual course of art history—simple motives; ingenious elaboration; and then devices to give rich effect with saving of intellectual labour. The first step in labour-saving was to introduce the second member in a plait, which in Italy was known by the middle of the 8th century. Now, allowing time for the arrival of fresh ideas in Britain by the import of decorated objects and the observations of travellers, we get an independent means of dating design in our island. The continuous plaits of the finest Anglian crosses must be roughly of the first half of the 8th century; the plaits imitating them, but of two members, of the second half of that century. Angular plaits and freer treatment come into use during the 9th, and the ring-knot and other easy devices in the 10th and 11th centuries. None of the fine figured crosses we class as Anglian bear the later kind of plaits; none of those we class as Viking Age bear the elaborated symmetrical plaits of the Anglian. The Croft continuous plait is of early 8th century type; the Bewcastle two-member plait is of late 8th century type. And the analogy of the Ruthwell Cross to Bewcastle Cross suggests a similar date.

Hackness Cross (Fig. 8) is inscribed in memory of an Abbess Ethelburga; which of three named in history is not certain (see Searle, *A.-S. Bps., Kings, and Nobles,* pp. 282-3, and his references). But it must have been made in the Anglian age, because the nunnery, founded 680, was burnt by the Danes in 869, and not restored until after the Norman Conquest. The Normans would not have dedicated a cross to an Anglo-Saxon saint with such words as "May thy houses [nunneries] ever be mindful and love thee, most loving mother. Holy Abbess Ethelburga, pray for us!" The cross is therefore pre-Danish, and its severe scroll and continuous plait suggest the middle of the 8th century.

Of about this time there is a coin of King Eadberht (737-758) with a beast grotesquely kicking up its hind-leg. It may have had some significance; but the same idea is repeated on the shortest of the crosses at Ilkley Church (Fig.

9), as Mr George Benson, of York, first pointed out to me. This shaft bears also a saint with a book and other figures of animals of imaginary but graceful forms, which seem to be a later, but not very much later, development of the beasts of Auckland and Croft. This stone, therefore, I should place rather late in the 8th century.

A cross-shaft with similar beasts can be put together from fragments at Aldborough Museum and Cundall, as Mr G. W. Haswell, of Chester, first observed. The restored part of the shaft is 8 feet high; there was at least one panel beneath, and the whole makes a very fine monument, though the human figures are too defaced to be explained. Among the beasts of the graceful Anglian type, monstrosities, but still drawn with some notion of animal form, is one reaching down its head between its forepaws to bite at berries. Later on, we find at Collingham a stone (Fig. 26) with a beast in the same attitude, but drawn in a style and associated with ornament of the 9th century; it is a survival of this Aldborough motive, because the meaning of the action is lost—the beast at Collingham has no berries to bite. The Aldborough shaft is therefore earlier, and no doubt of the 8th century, but late in that century, by the loose design of the plaits. The " impost capitals " of the architecture to the figure-panels are in the shape of which Rivoira (*Lomb. Arch., passim*) gives examples of the 5th and 6th centuries ranging from Jerusalem to Grenoble; the fashion seems to have died out during the period in which Anglian crosses were made; and the appearance of these " impost capitals " on a cross adds a reason for dating it to the Anglian age.

To take another line of evidence. The Ormside Cup in the York Museum bears on its sides (Fig. 11) bird-scrolls like those of Croft and other Anglian crosses. The base (Fig. 12) has been roughly patched; but the rim has been carefully repaired, after damage, with work which Mr E. Thurlow Leeds, F.S.A., of the Ashmolean Museum, Oxford, has shown to be of the period about 900 A.D. (*Liverpool Annals of Archæol.*, March, 1911). This means that it was old by that time, and consequently a work of the Anglian age. Its patterns, seen on crosses, fix them to that period. The bosses and

knots of the base are those of the Northallerton Cross (Fig. 13), which bears also scrolls, developed from the Hexham Spital type, and two unusual motives—a key-pattern and a chevron border. The chevron is seen also in crossheads at Ripon and Carlisle, and in the very beautiful "Loaves and Fishes" cross at Hornby, in North Lancashire (Fig. 14), with a bit of inscription in Anglian minuscules, and rather late Anglian plaits, but no scroll-work.

One of the finest Yorkshire crosses was that at Otley (Fig. 15, restored from four fragments). It combines most of the motives so far noticed; and what remains of the group of the monk kneeling before the angel holding a cross (the foot of which is seen) is beautifully carved. The scroll-work is fine and bold, derived from Hexham, but developed, as it would be, towards the end of the 8th century.

We have already collected enough examples—though these are a very small part of the whole mass of remains—to show that Northumbria in the 8th century was the home of a considerable school of decorative art. To form such a school there must be circumstances favourable to their work. If the picture usually drawn of Anglian history is true—Rivoira sums it as "discord, revolt, and slaughter; fire, pestilence, famine" (*Lomb, Arch.*, ii., 155)—how could the favouring circumstances be found?

Closer knowledge of the period shows that it was really an age of peace and plenty, following an era of great activity in the 7th century. The few wars were mainly victorious, and the troubles of the royal families—for late in the 8th century there were two rival dynasties—do not seem to have affected the people in general. There were court intrigues and faction fights between the retainers of the royal houses; but the real ruler of the people was the Church, and its organisation continued unbroken. The Church was patron of the arts, especially of monumental sculpture. Many of the sites where crosses of this age are found are known to have been abbeys; and as persons of importance were usually buried at abbeys, it is probable that all Anglian crosses were set up as memorials at some kind of religious house. And the activity

and culture of the Church in that period can be seen in its literature.

The 8th century began with Bede and ended with Alcuin. The school of York was the greatest "university" in Europe; it supplied books to Charlemagne's library and taught theology, letters, and law before the schools of Paris and Bologna had arisen. It sent missionaries to pagan Germany. It eclipsed even Iona, the most venerable of early schools in the West.

In native poetry the century produced work of great interest and variety. *Beowulf* "may have been composed as early as the middle of the 7th century, but was written down perhaps some 50 years later, . . its original language was the Anglian, *i.e.*, the Northern variety of the Anglo-Saxon speech" (Professor Sedgefield, *Beowulf*, xliii). The *Christ* of Cynewulf is a still more wonderful production. "Critics are at one in placing the 'floruit' of its poet during the second half of the eighth century" (Professor Gollancz, *Cynewulf's "Christ,"* xxii.).

Now, one of Cynewulf's poems—for *The Dream of the Cross* is the introduction to his *Elene*, a poem on the discovery of the true cross by St. Helena—is quoted on the Ruthwell Cross. This shows that the cross-designers were people of culture, and English by nationality; they were aware of the association of the two arts of sculpture and literature; they practised, or at least patronised, both. And it gives evidence of the date of the cross; for the poem must have been in its fresh vogue when it was thought worthy of illustration in stone.

Before the time when doubt was thrown by Signor Rivoira and Professor Cook upon the old dating of the Bewcastle and Ruthwell crosses, most of us accepted the idea that they were both of the period of King Ecgfrith; for the Bewcastle cross seemed to state that "in the first year of King Ecgfrith" (670-71) it was erected. We owe a great debt to both these scholars for re-opening the question. The date must now be shifted, but I suggest that the later part of the eighth century satisfies the requirements in both cases.

On the Bewcastle Cross (Fig. 16) the Falconer would be

possible after about 750 (Prof. A. S. Cook, *Date of the R. and B. Crosses,* pp. 63-64). The sun-dial was known, though not so common as it became on church doors in the 11th century; there was one at Housesteads Roman fort (now in Chesters Museum) which might even have been visible to people of the time. The chequers are unusual, in ornament of this age, but not without some parallels; panels divided up into squares are seen in the Gospels of MacRegol, Durrow, and Treves (Westwood, *Min. and Ornts.,* pl. 4, 16, 20), and the Book of Durrow has a panel of crosslets, set in lines coloured alternately (*ibid.,* pl. 6), recalling the crosslets at Irton (Fig. 24), alternately raised and sunk. The draught-board (A.-S., *Tæfl,* from *tabula*) was known; part of one was found in a hoard of about 200 A.D. at Vimose in Denmark, and is now in the Copenhagen Museum. Moreover, true chequers like those of Bewcastle are actually seen on a stone, formerly a monument or ornament at Hexham Church, now taken to Durham (Stuart, *Sc. Stones of Scotland,* ii., pl. xciv., 1; *Durham Cath. Lib. Cat.,* No. x., p. 65); and this, whether of Roman or Anglian origin, must have been known to the Bewcastle designer.

These considerations suggest that an experiment in design was made at Bewcastle; and, considering the variety and fertility of Anglian art, this would not be surprising. We have already seen the chevron in Figs. 13 and 14, notwithstanding the common belief that it was much later; but we find no acanthus at Bewcastle and Ruthwell, and the names in the inscriptions show no Danish and Norman forms. The whole design is in the spirit and style of other Anglian crosses. The figure-drawing is fine in its way, but not finer than that of Otley or Easby (Fig. 17) on a stone which bears also scrolls and plaits, and perhaps could be built up with other stones still in the walls of the church to make a fairly complete cross (Fig. 18), sharply contrasting in its grace and refinement with the very different style of the 10th century as seen in the example from Ellerburn given along with it.

If there is any reason in the rule about plaits which we have discussed, these symmetrical, two-member plaits are of the second half of the 8th century. The scrolls are not the

Hexham scrolls of the Spital (Fig. 4), nor even the more advanced scrolls of the Acca cross (Fig. 3); but they seem to be of Hexham origin, further developed; and the nearness of Bewcastle to Hexham suggests a possible influence. But if so, and if the names can be still read as referring to Alchfrith and his contemporaries of a century earlier, we have the explanation from Hackness, where a cross seems to have been put up, not as the gravestone of Abbess Ethelburga, but some time—probably a long time—after her death, as a memorial.

The runes of Bewcastle and Ruthwell have been well discussed by Messrs Forbes and Dickins (*Burlington Magazine*, April, 1914), with the conclusion that they are 8th century. As to the argument drawn from the word *ungget* on the Ruthwell Cross, Professor Cook (*op. cit.*, 35/247) sums it in these words :—" The evidence favours a late period rather than an earlier, (1) because the only other occurrence of the word is in a text with late spellings, (2) because *-et*, the ending in both examples of the word, seems late, as if due to lack of stress, and (3) because the sculptor makes two blunders in one word, showing perhaps that it was specially unfamiliar when he worked." In Fig. 1 I give the word enlarged, near its place on the shaft. The blunder is apparent; the materials for deciding the point are slight; whatever weight it may carry must be balanced against the evidence in the opposite scale.

Any traces of a wheel to the head of Ruthwell Cross I have been unable to find on the original, after careful search. The " three cuts " mentioned by Dr King Hewison are below the point where a Celtic wheel would spring; they are damage to the slightly projecting offset of the base of the head, which is still seen on the west side, but effaced in the view from the east. This offset is common in rather later Anglian cross-heads, probably originating in the " eaves " or dripstone moulding given to the head when it was affixed as a separate stone, to prevent rain from driving in and frost from prising off the head; from cross-heads re-used for building we often find this offset and the lateral arms knocked off. The restorer who inserted the present cross-arms did not quite understand the construction of a head of this type, and has given one pair of cusps too many. Fig. 1 shows the usual construction,

which I think is also more graceful; and the style of the missing arms may have been more like those shewn in Fig. 19; at any rate, the archer was probably shooting at a bird (or beast) in the panel at which he aims.

Under the St. John I think we can read "ADORAMUS IN(itium) ET F(ine)M," recalling the formula of the lately rediscovered stone at Kirkmadrine and others. The sketch of the loose fragment (to twice the scale of the cross) is added, because it looks like an ornamented door-jamb of the late Anglian period, and tempts the suggestion that there was a stone church here, perhaps rather later than the cross. The place was not called "Ruthwell" in those days; it is a Viking Age name; and this makes the search for records of any foundation by no means easy.

But Ruthwell was not then in the Scotland of that age; it was in the land of the Cumbri, which had been annexed by the Northumbrian Angles. In 750, King Eadberht, whose coin has been mentioned, took Kyle from the Strathclyde Britons (*Bedae continuatio*), and on August 1st, 756, he and Aengus, King of Picts, in alliance entered Dumbarton (Symeon Durh., *Hist. Reg.*, 756). Though the conquering army met with some disaster ten days later, the Northumbrians did not relax their hold on the south-west of what is now Scotland; there is no trace of any return of the Cumbri to power (Skene, *Celt. Scot.*, i., 296), nor of any great move of Celts against Angles, until Kenneth MacAlpin, a century later, invaded "Saxonia"—the Lowlands—and burnt Dunbar and Melrose. Even later (Sym. Durh., *Hist. Recap.*, 854) Lindisfarne diocese included Melrose, Edinburgh, and Abercorn; and in the west, the last Anglian bishop of Whithorn held his post until 802, the year in which Iona was first burnt by Vikings, and no doubt the whole coast threatened.

In view of this 8th century settlement of Angles throughout the Lowlands, we should expect many traces of their presence beside the Ruthwell Cross. These traces exist. They have been illustrated in Stuart's *Sculptured Stones* and Romilly Allen's *Early Christian Monuments*, but I do not know that they have been clearly disentangled from the rude stones of earlier age and the Celtic and Scandinavian monu-

ments of later period. These remains lie along or near the Roman roads in most cases, as do the earlier monuments in England, for the Roman roads were the ordinary routes of travel through a country then chiefly wild. Following the east coast, we find Anglian stones at Coldingham and Aberlady; along the road from Redesdale over the Cheviots, the fine work of Jedburgh, and decadent Anglian at Lasswade and Abercorn. By the road north from Carlisle, at Hoddom there was an abbey very rich in monuments—the stone now at Edinburgh seems to connect with the early 9th century style of Heysham, near Lancaster, and in Fig. 19 I attempt to restore three crosses from the photograph in *Early Christian Monts. of Scotland* of fragments at Knockhill. At Thornhill are late Anglian stones, some from Closeburn and Glencairn, and at Cairn in Ayrshire is another. These shew that the Ruthwell Cross does not stand alone, though it happens to have been preserved while others have been ruined.

But in order to show reasons for giving so early a date to this Cross, we must pursue the history a little further, illustrating the styles of the later periods to which it has sometimes been attributed.

Early in the ninth century the political and social decadence of Northumbria began to set in; and the crosses showing Anglian tradition still unbroken, but degenerating, seem to find their place between 800 and 867, when the Danes invaded. After that, there was a period of transition until the Anglo-Danish or Viking Age style began to find itself, about 925. During the 11th century influences from the South of England modified the Viking art; and when the Norman conquest was complete the old monuments were thought, as the Norman abbot Paul of St. Alban's (1077-1088) called them, "rudes et idiotae," and often broken up to be built into new church walls, from which many have been recovered.

Fig. 20 represents the shaft at Collingham with the Apostles, drawn in the style of 9th century Anglo-Saxon book illustration. Fig. 21 gives the parts of three shafts in Halton church, near Lancaster; the first rather debased from Otley (Fig. 15), but repeating the motive of a figure kneeling before an angel, who here holds a tablet or Book of Remembrance.

This is repeated, still further debased, in the next shaft, which also repeats the seated saint, with a curious blunder in confusing the cross he holds with the fold in his drapery below it. The third shaft bears an archer, with late Anglian ornament, and figure-groups—Christ healing a woman and the Three Children in the Furnace—in the drawing of an age when the classical models were not entirely forgotten, but were not so closely followed as at Bewcastle and Ruthwell. The same style is seen in the Madonna shaft at Dewsbury (Fig. 22); the Virgin and Child are already portrayed on St. Cuthbert's coffin; the Loaves and Fishes at Hornby; and here we have the Miracle at Cana, with a scroll obviously derived, but debased, from Hexham.

The tendency in scroll-design was naturally to make it looser in wide panels, and stiffer in running patterns; to lose its early naturalism and to make both plant-form and animal-form less graceful and more "stylised." This is seen in the second shaft at Ilkley church (Fig. 23) and in the perfectly preserved cross at Irton, Cumberland (Fig. 24). This had an inscription in which Anglian runes could formerly be read: one of its plaits resembles one at Bewcastle with the double-bead of the strap interwoven; its key-pattern recalls Northallerton; its chequers, in which plain squares are replaced by crosslets, show an attempt to improve upon the Bewcastle chequers. But we cannot, on that account, take it out of the Northumbrian series, into which it fits as a 9th century work.

The Irton stiff scroll, still further tightened and stiffened, appears in the tallest Ilkley cross (Fig. 25), now carrying a head (from Middleton Hall, formerly at Ilkley church), which is of the period, if not the original head to this shaft. The attempt to vary the scrolls shows the striving for new and more piquant effect, characteristic of decadence; the figures are very conventional, though finely decorative, already a long way from Ruthwell and Bewcastle. This cross must be of about the middle of the 9th century, not long before the Danish invasion of 867.

It has been supposed that the Danes would have destroyed the Ruthwell cross, if it had existed in their day.

They certainly destroyed, in their first onslaught, the abbeys and churches of central and east Yorkshire and County Durham; but the Archbishop of York found a secure refuge no farther away than Addingham, in Wharfedale, until the time, only twelve years after the first invasion, when the Danes elected a Christian king. Meanwhile, in 875-6 they raided Northumberland, burnt Carlisle, and marched through Dumfriesshire, no doubt by the Roman road, to attack the Strathclyders and the Picts of Galloway; but they made no stay in these parts, for in 876 Halfdan dealt out the lands of Northumbria (*i.e.*, part of Yorkshire and Durham) to his followers, and they thenceforth continued ploughing and tilling them, as the Anglo-Saxon Chronicle says. In the raid to the northwest most likely they sacked Hoddom, but probably passed Ruthwell, off the main line, unnoticed. Early raids, like Robert Bruce's in Cumberland, kept pretty closely to the roads, and did not spread out widely over the country.

Now, when the Danes settled down and continued ploughing and tilling, they very soon adopted the manners and religion of the country. They must have required monuments for their dead, when they were once converted. They did not, like the Normans, bring in a ready-made art of masonry, though they had their own style in wood-carving (*e.g.*, the grotesque figures in the Tune ship, dated by Dr Haakon Schetelig to about this time, *Tuneskibet,* Kristiania, 1917, p. 10) and metal-work. Any monuments they set up must have been made by such Anglian workmen as remained (for the Angles were not exterminated, though the best workmen seem to have left the country; there are traces of their emigration to the Pictish North), gradually assimilating Danish and Scandinavian taste, and creating the art of the Viking Age. And even monuments to Angles under Danish rule must have approximated more and more to Danish ideas of art.

For example, the cross at Collingham to Ærswith (the false reading " Onswini " has obscured the dating) shows scroll-work debased into straps (Fig. 26) and beasts which, though Anglian in origin, are becoming 10th century dragons.

The one with its head down we have already noticed in connection with the Cundall-Aldborough shaft. This is obviously a post-Anglian but pre-Viking Age work, and of the late 9th century.

At Kirkby Wharfe (Fig. 27) is a cross with late, expanded arms to the head; this expansion went on till at Whithorn we find the arm-ends nearly meeting, and thus forming a wheel. The arrangement of plaits in the centre of the head to side *a* was repeated through south-west Yorkshire, and carried to the Isle of Man, where it was adopted by that remarkable artist, Gaut Bjarnarson. The step-pattern and TLT, the ring in the plait of side *c*, the basket-plait and joined *triquetrae*, are all what became common in the 10th century; but the figures of SS. Mary and John beside the cross are of Anglian tradition. The cross is transitional between late Anglian and Viking, and of about 900 A.D.

The same mixture of forms is seen in the shaft at Urswick-in-Furness (Fig. 28), which "Tunwini set up in memory of Toroeotred (? Torhtred)," as the inscription in early runes states. Across the late rude figures is written "Lyl this wo(rhte?)"—*Lyl wrought this* (?)—and the scroll, with its grotesque figures, birds and beasts, shows the Anglian tradition far gone in decay. It cannot be 12th century, for we know the history of Urswick after Domesday Book, and no such names occur. It must be of about 900 A.D. or a little later.

The stone found by Mr George Benson at St. Mary Bishophill Junior, York, built into the early Norman fabric (Fig. 29), shows the scroll turning into the "snake-sling" of the Viking Age; the berries dropped off and treated as pellets, and the leaves becoming snakes' heads. In the 10th century basket-plait a snake is inserted. The well-known Lancaster cross-head in the British Museum is another example, a little further developed, of the same transition, though its early runes record a purely Anglian name, Cynibald, son of Cuthbert. The change in style was conditioned by period, not by race.

In the Leeds cross (Fig. 30) we have the debased Anglian scroll (6, 8), the plaits of the 10th century (16, 20), grotesque

evangelists (5, 13, 15), perhaps copied from an Irish book (the first trace, so far, of Celtic art in England), and the legend of Wayland Smith (21, 25) already portrayed on the Northumbrian Franks casket in the British Museum, a work of the 8th or 9th century, and retold in the *Völundarkvida,* the earliest poem of the *Edda,* dating to about 900. This cross, dating to about 920, is fully discussed in Vol. xxii. of the Thoresby Society's *Miscellanea.*

After this, in Northumbria, the Viking Age style formed such monuments as those at Dearham, Cumberland (Fig. 31), Stonegrave, Yorkshire (Fig. 32), and Gosforth, Cumberland (Fig. 33). The last, beautiful in its spiry proportions (14½ feet high) and interesting in its illustration of the *Edda* poem known as the *Völuspá,* current at the close of the 10th century, is identical in style with stones recovered from the 12th century foundations of Gosforth church, and must therefore be considerably older than the church; it must be of about 1000 A.D. The style of these crosses was the style of the period in the North; any cross raised at Ruthwell in this age by North country people must have been of this type, which was carried to the countries in touch with Viking Age Northumbria and produced their 11th century designs.

But in the South of England the older traditions derived from Northumbria lingered, developing into forms different from 8th and 9th century Anglian. In stones of the Wiltshire group, there are at Britford rings in the plait, not earlier than 10th century; at Ramsbury, rings and 10th century dragons; at Bradford-on-Avon, key-patterns of the 11th century, and Rivoira dates the architecture to about 1066-1086. The scrolls of Ramsbury are not volutes, but series of rings, unlike any Anglian scrolls, but like some Italian 11th century ornament. Now, if St. Dunstan, a Wessex man, designed Ruthwell Cross, he would have illustrated the style of his age; he could only have planned Ruthwell Cross, as we see it, by going back on the progress of art for two centuries and finding models in the North of England.

What was being done in the time of King Knut in the North is shown by the Nunburnholme shaft (Fig. 34); the hands holding the arches are of the Viking Age; the local Jarl

in his helmet, sitting on a stool, is of that time; but the she-centaur with an imp clinging to her back looks like the reminiscence of a motive from Roman sculpture seen abroad.

Of Edward the Confessor's period we have the Halton shaft (Fig. 35), imitating, with a difference, some of the features of earlier crosses at the same place (Fig. 21), but illustrating the story of Sigurd the Völsung and Regin the smith, a legend which became popular in the 11th century, and is also illustrated upon Manx stones. After this, the making of tall crosses as memorials appears to have passed out of fashion in Northumbria; the art had already moved away to Wales, Man, Scotland, and Ireland, where it grew into the well-known Celtic forms. And if runes are used in this period, they are the later Scandinavian runes, not those of early Anglian type. Finally, on the Bridekirk font (Fig. 36) of the late 12th century late runes record Richard, the carver; and the ornament is strikingly different from that of Ruthwell.

The Anglian series (to sum up my argument) includes a considerable number of monuments, ranging geographically from the Humber to the Forth; that is to say, co-extensive with the 7th and 8th century Anglian kingdom. The group is not well known except to the few who have studied it, and still awaits full illustration and description. No wonder then that foreign critics have overlooked its character as a distinctive school of art. But most English students recognise that it is marked off from Anglo-Danish or Anglo-Norse work by the complete absence of "snake-slings," of basket-plait and other simple plaits, of late runes, and of the sketchy handling of stone-carving in the Viking Age; it is distinguished from 12th century sculpture by its more restrained design, by the absence of acanthus in all forms, by a much less laboured technique, and by the inscriptions, which contain no Danish or Norman names. Anglian ornament, as all who are accustomed to design must observe, has a style of its own. It is based on scrolls, plaits, and figures derivable from Roman and Italian sources, earlier or contemporary, and develops along the lines of development in Italy. Some few motives (sun-dial, chequers, chevrons), which have been

thought to be later, can be classed as experimental, and were borrowed from existing models. The principal motives are seen in some contemporary local work, as the Ormside Cup, St. Cuthbert's coffin and coins. Certain Anglian monuments (as Hackness, Urswick) can be shown on historical grounds to be earlier than the Danish conquest. Others have been taken from Norman walls, where they were used as building material; the style by then being extinct. No Anglian fragments are known at abbey or church sites which were first founded after the Norman conquest.

As to typological development, I have tried to shew that the Anglian cross must have been designed, late in the 7th century, from materials accessible in the Tyne and Wear valleys; that it travelled in every direction, during the 8th century, throughout the area then Northumbrian; that in the 9th century its art followed the decadence of the nation, and at the Danish conquest passed naturally through transitional forms, providing material for the design of the Viking Age in Britain and influencing styles of art abroad.

Against all this there stands the linguistic argument, which suggests a later development. The difficulty is not unique; for example, in Manx monuments, typologists like Dr Schetelig seem to date changes about a century earlier than philologists like Dr Brate. The typologist is tempted to believe that his materials are the more complete and his method not less scientific; but no doubt the antinomy is one which is not insoluble.

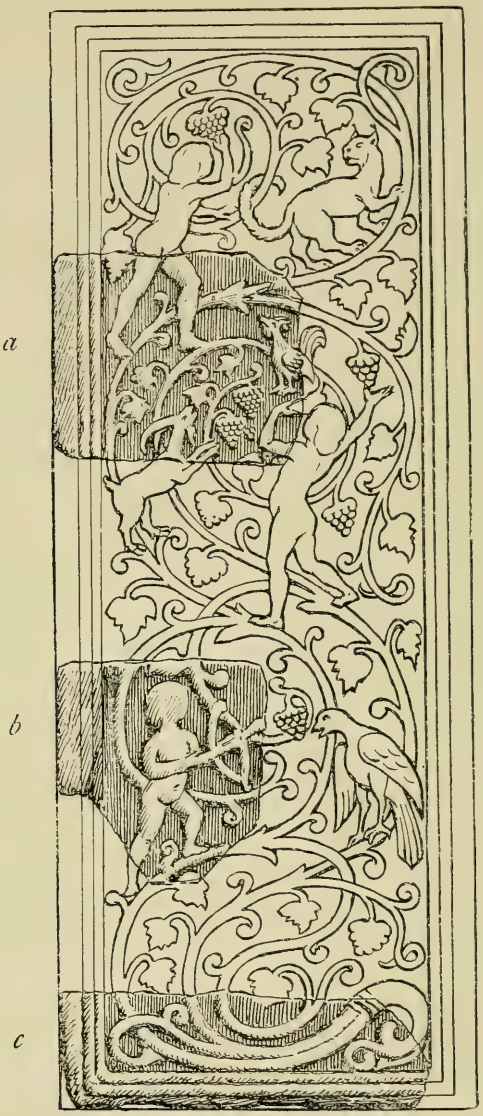
In the middle of the 12th century an artist designing a cross at Ruthwell, if he were English or continental, would have illustrated the newer art of his time. A Scot would have elaborated the interlacing and key-pattern of such stones as the famous cross-slab at Nigg, or carved the figures of St. Andrews. A Manxman would have made a Norse cross; and an Irishman, one of the colossal Monasterboice type. None of these would have gone back to the old Northumbrian art and literature, reproducing them with exactitude. There are mediæval forgeries of charters, and modern reconstructions of antiquities; but if the history of monumental art was as we have traced it, the Ruthwell Cross cannot be a " fake " of

the 12th, or even the 10th, century. It takes its place in the Anglian series, a little later than we formerly supposed, but still in the same period.

Why it was set up, to whom, or in memory of what event is a question that might perhaps be answered if we knew something of Dumfriesshire in the 8th century, under the Kings Alchred and Elfwald the pious (765-788) and Bishop Cynewulf of Lindisfarne (740-780). But the chronicles and the Cross are silent on this point, and too many guesses have been made already by those who have attempted to assign monuments to the persons we know in history.

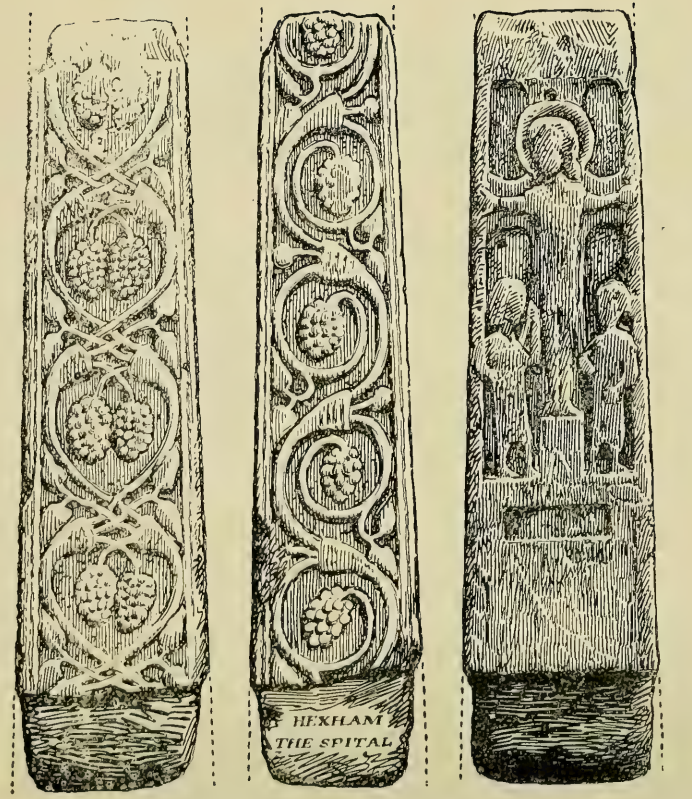
P.S.—Since the above was in the printers' hands Professor Albert S. Cook has kindly sent me his review of Bishop Browne's book on "The Ancient Cross Shafts of Bewcastle and Ruthwell" (*Modern Language Notes,* Johns Hopkins Press, June, 1917, pp. 354-366), and I wish to affirm my respectful agreement with the methods of research formulated by Professor Cook, while differing from him in conclusions. "These crosses," he repeats on p. 361 from a previous paper, "must be dated by ecclesiastical stone sculpture whose approximate period is beyond reasonable doubt." Certainly! Anglian ornament has no true analogy in the twelfth century, but close parallels in Italian details of the eighth and ninth. The argument from language cannot be denied; but as the Northumbrian dialect underwent changes earlier than the West Saxon (*ibid.*, pp. 356-357), I ask whether the materials existing are sufficient to prove that these changes did not begin before the Danish invasion. And, finally, I beg those who discuss the two better known monuments to study the rest. The problem of Ruthwell and Bewcastle is not solved by a theory which fails to explain the great series as a whole.

1. Ruthwell Cross and Fragment.



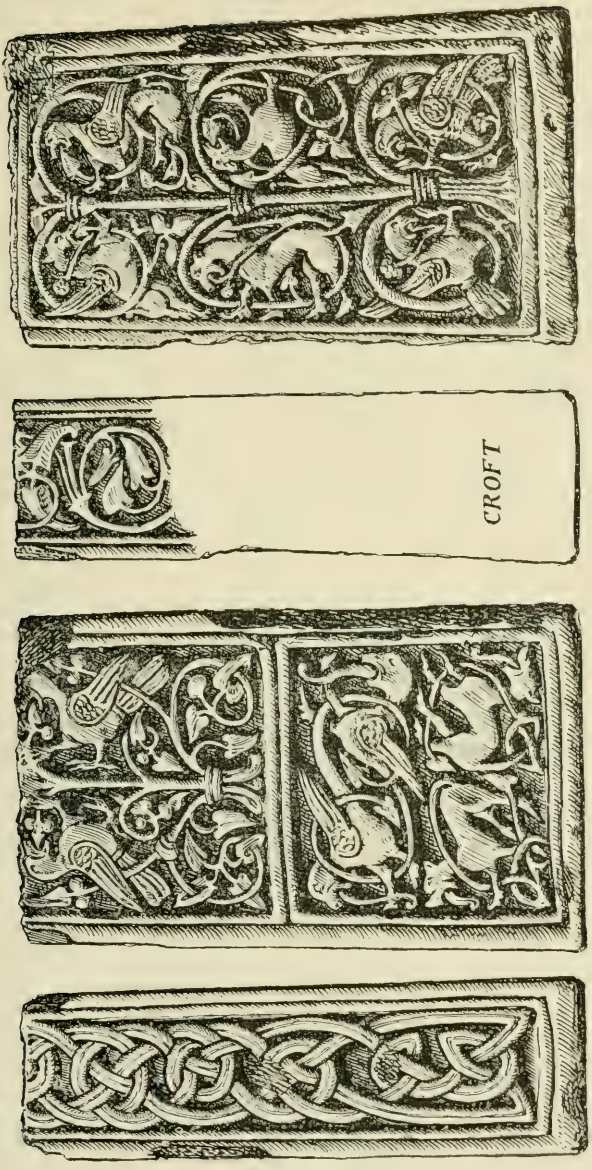
2. Restoration of Fragments:—
(*a*) at Hexham Church;
(*b* and *c*) now at Durham.

3. The Acca Cross: drawn by W. G. Footitt.



4. Cross-shaft at the Spital, Hexham.

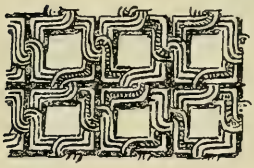
5. Cross-shaft at St. Andrew's, Auckland.



6. Shaft Fragment at Croft, near Darlington.

Cividale, about 737.

Valpolicella ciborium, 712-740



San Pietro, Toscanella, dated by Rivoira 739; (pattern common in 9th cent.)

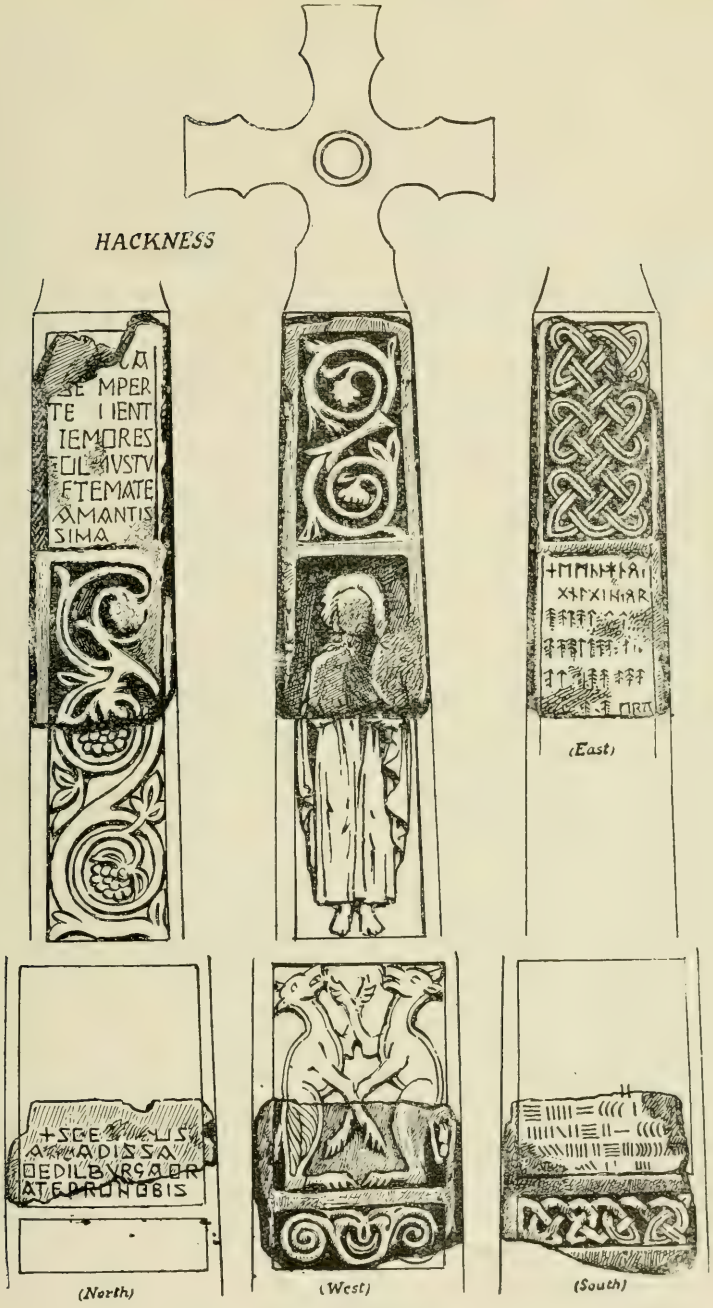
Cattaro (Ravenna or Comacine work) 809.

S. Apollinare in Classe, ciborium, 9th cent.

San Flaviano, Montefiascone, 1032.

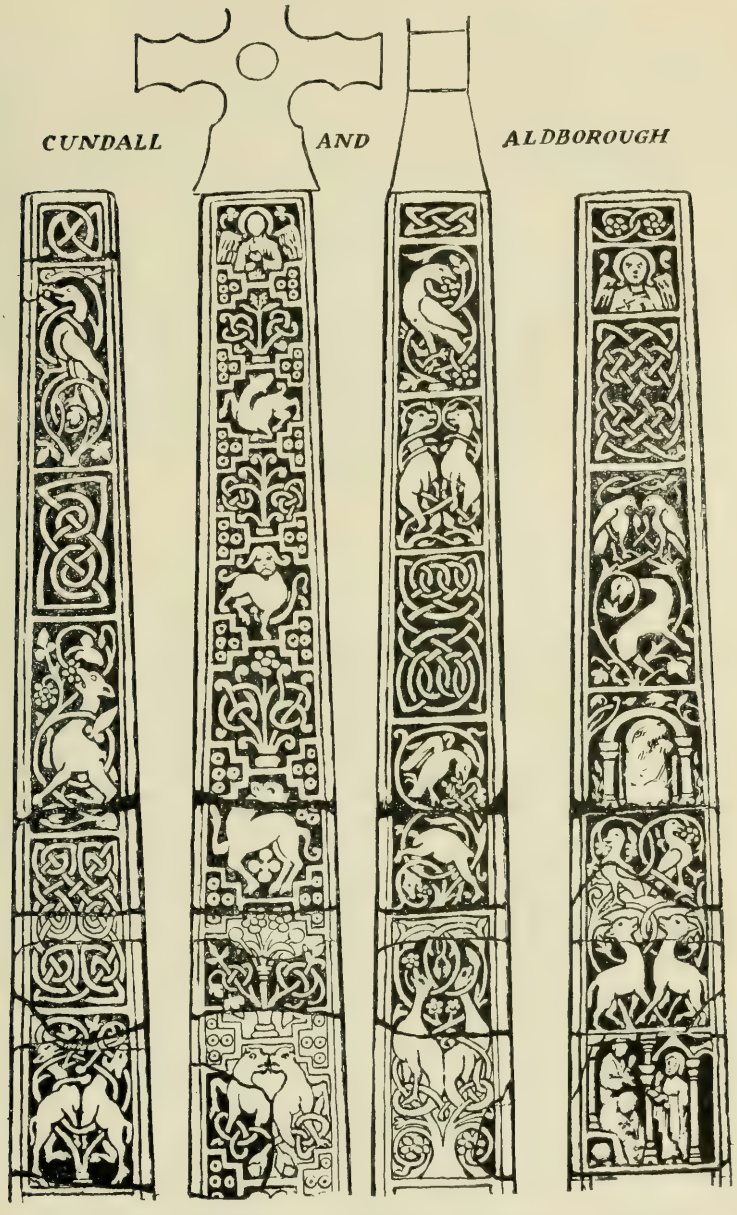
Sant'Ambrogio, Milan, 11th cent.

7. Plaits in Italian Church Architecture dated by Comm. Rivoira.

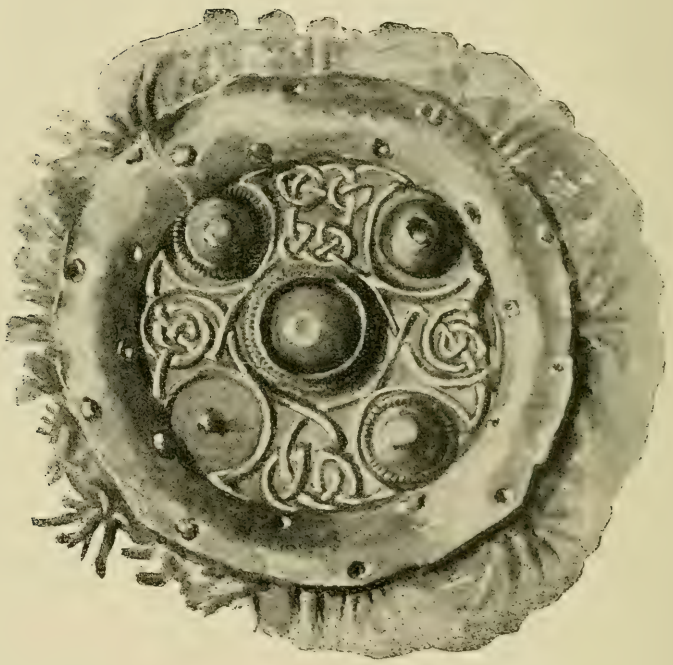


8. Cross Fragments at Hackness (Yorks.).

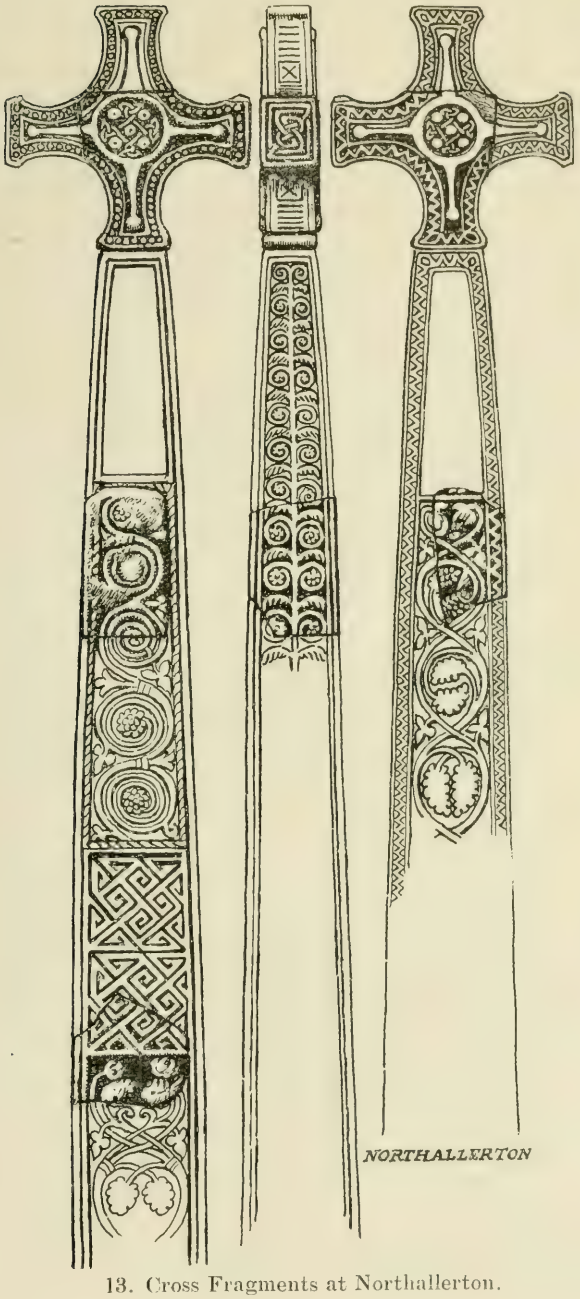
9. The Shortest Cross-shaft, Ilkley Church.



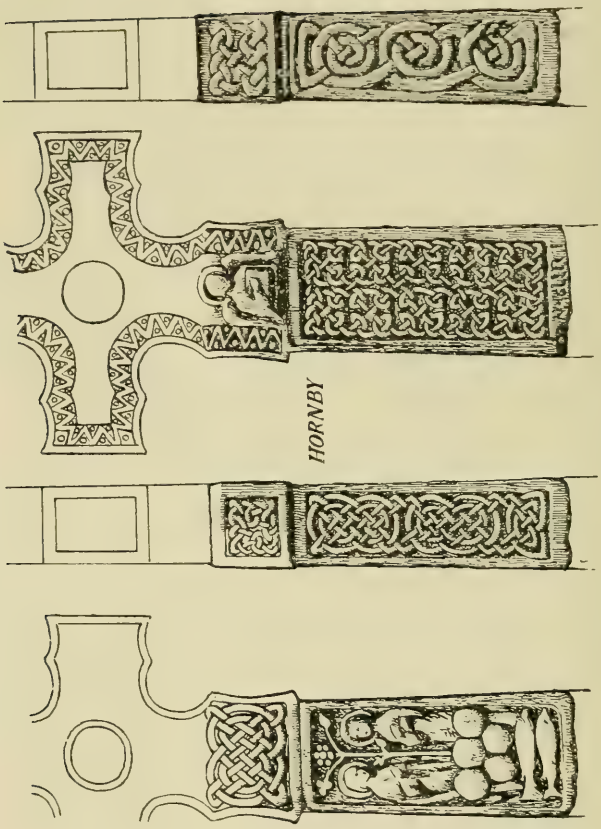
10. Cross Fragments at Cundall and Aldborough (Yorks.)



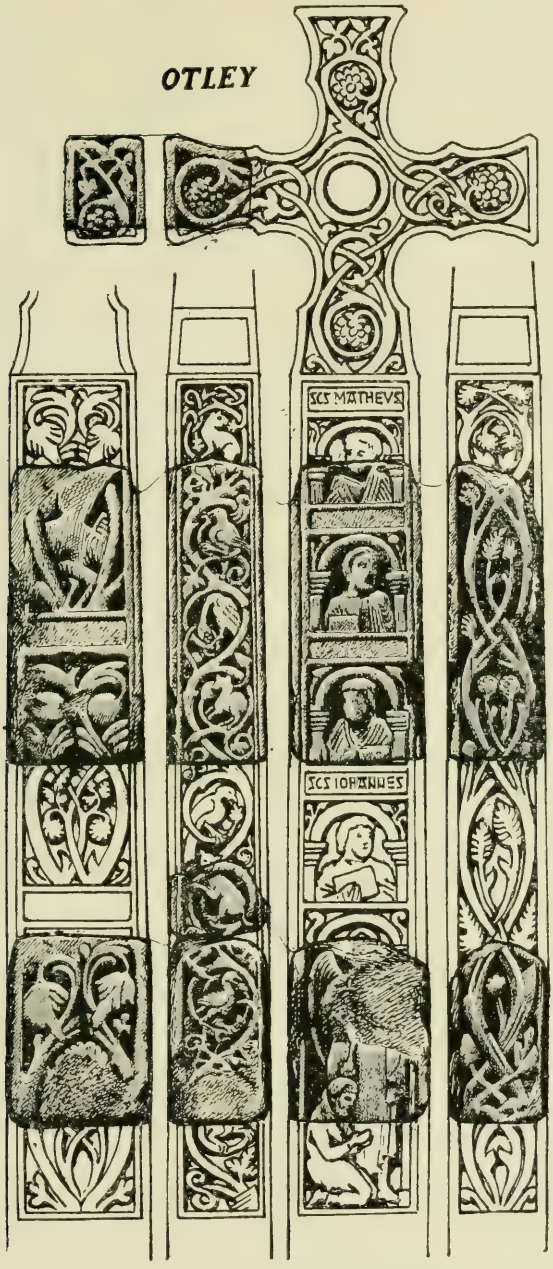
11. Side, and 12. Base of the Ormside Cup.



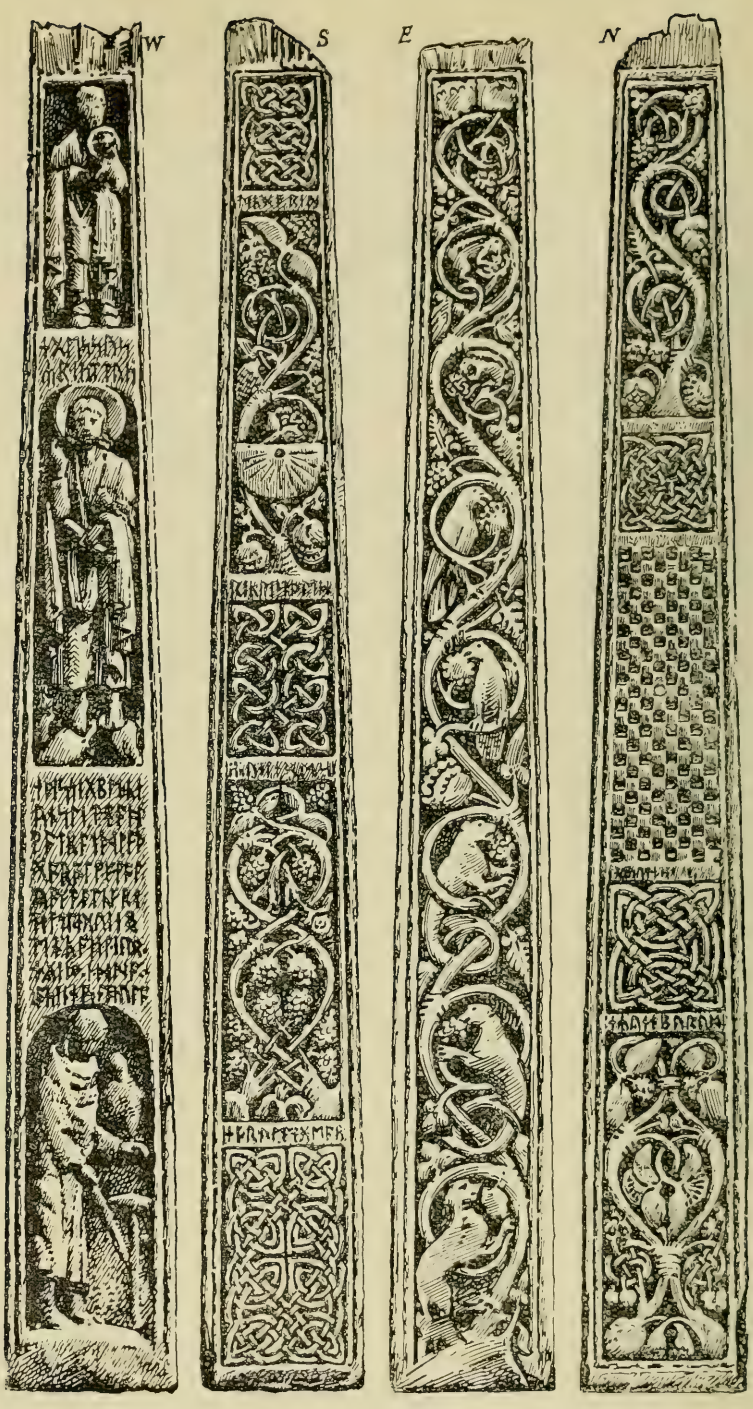
13. Cross Fragments at Northallerton.



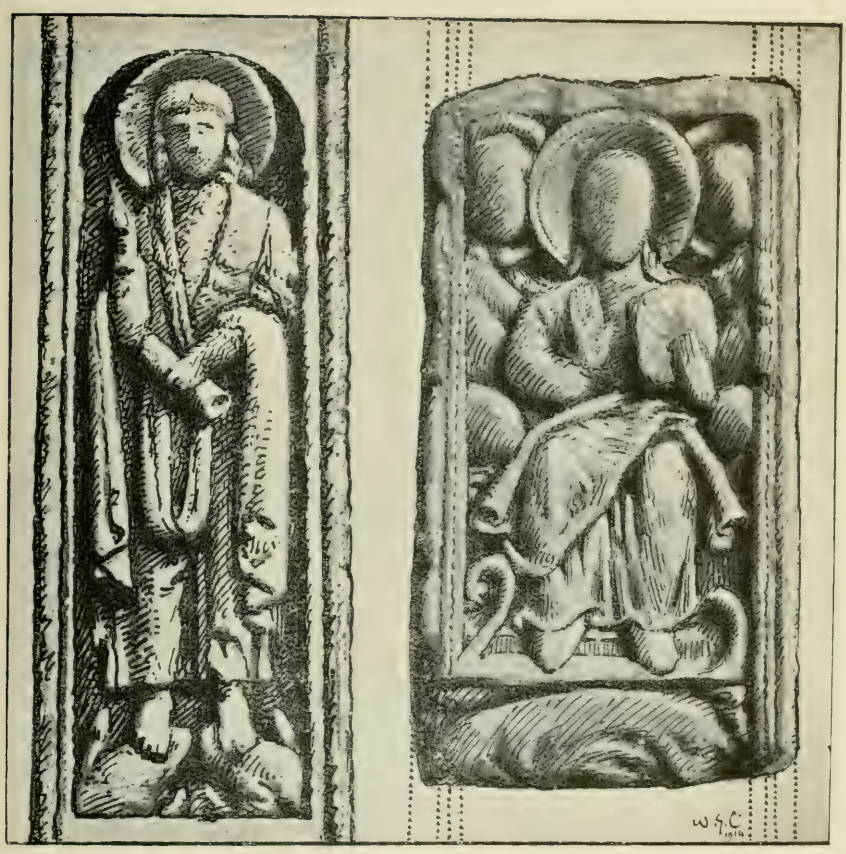
14. The "Loaves and Fishes" Cross, Hornby (Lancs.).



15. Cross Fragments at Otley Church.

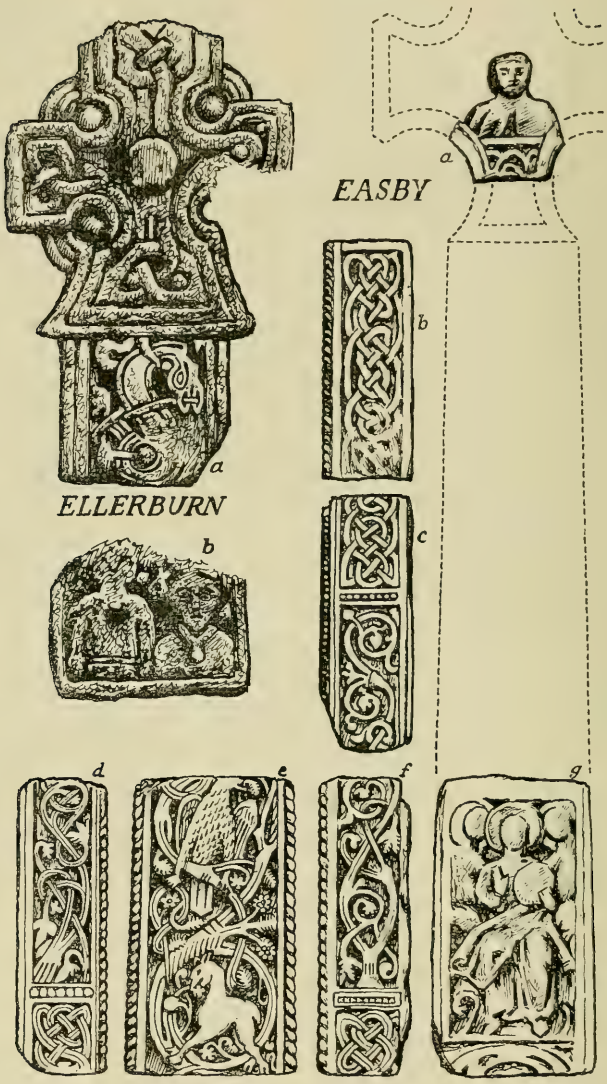


16. Bewcastle Cross.

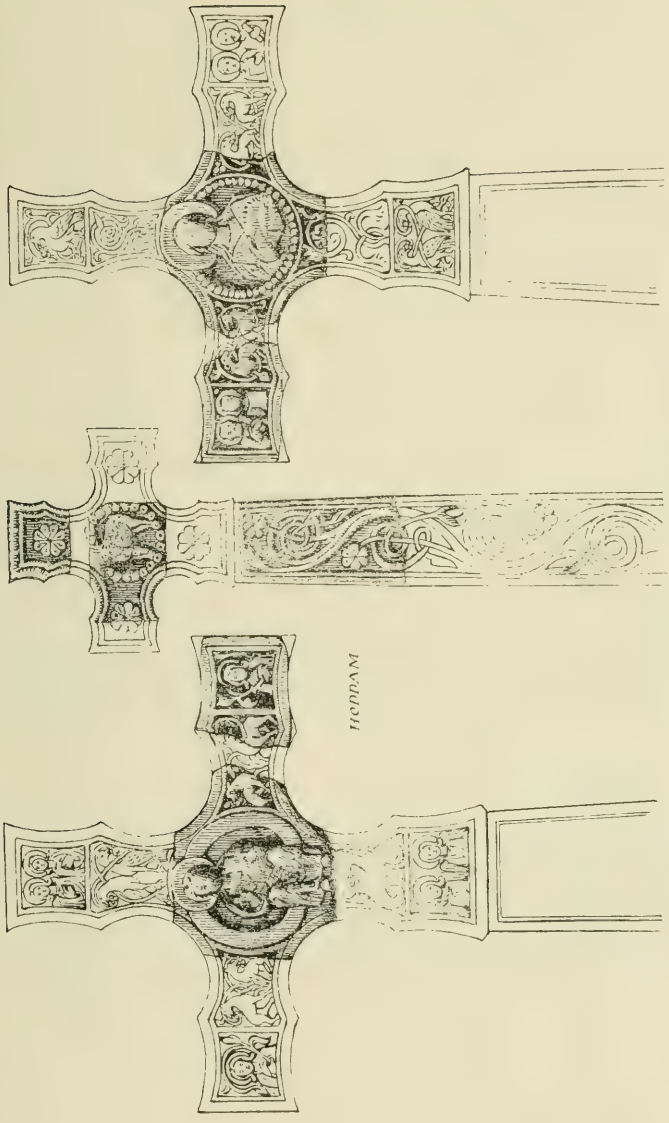


Bewcastle. Easby.

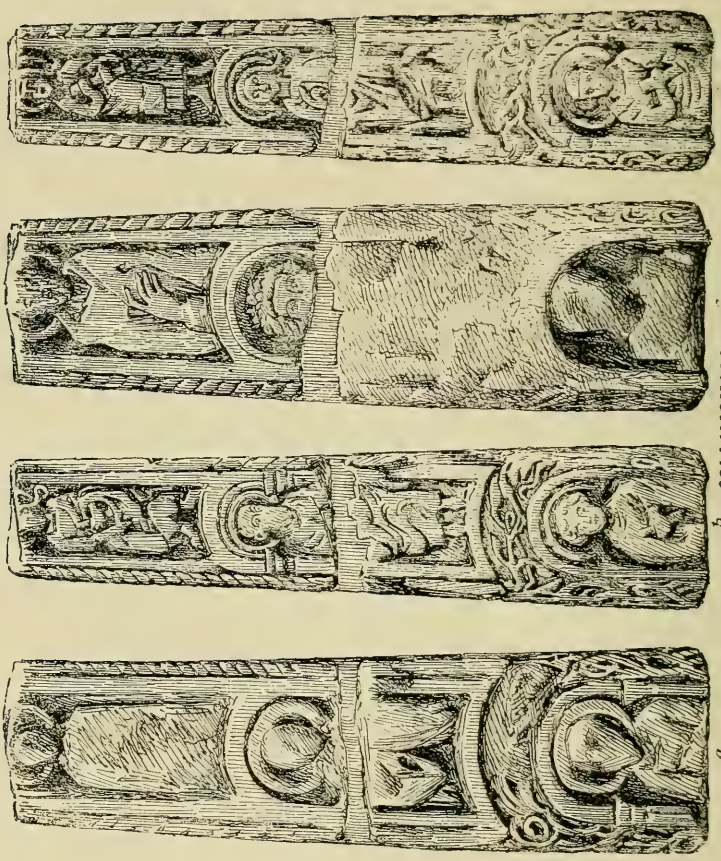
17. Figures of Christ from Anglian Crosses.



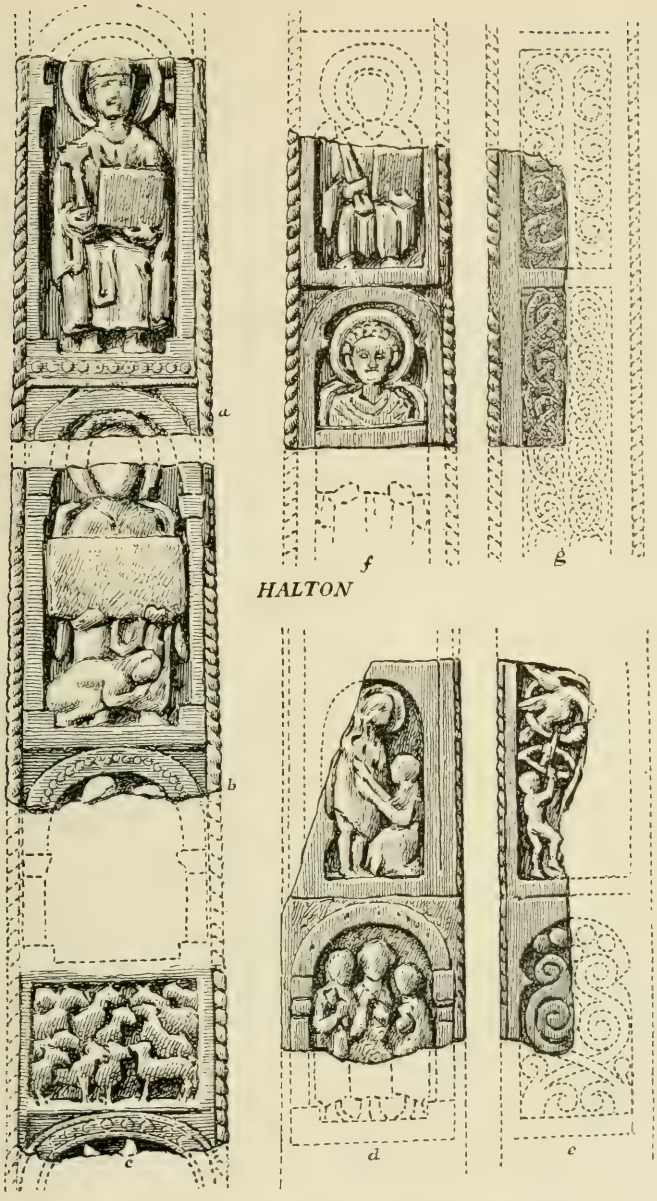
18. Fragments of Two Yorkshire Crosses:—Easby (Anglian) and Ellerburn (Viking Age).



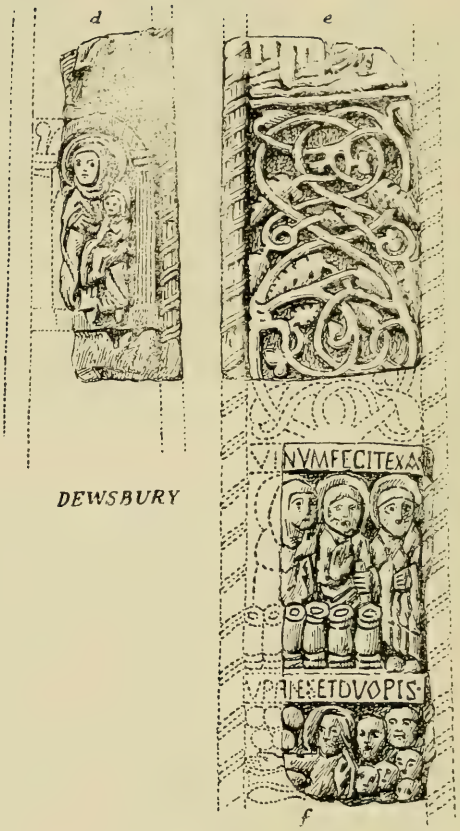
19. Cross Fragments at Knockhill, probably from Hoddam.



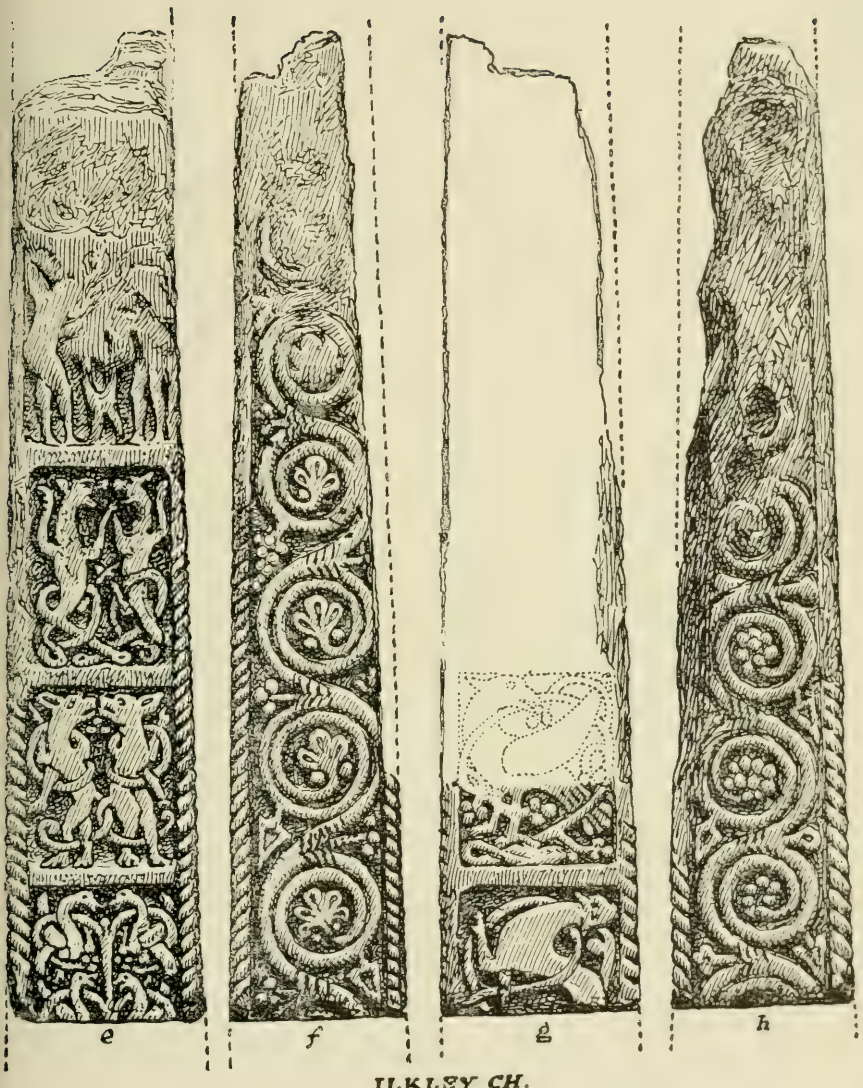
20. The "Apostles" Cross-shaft, Collingham (Yorks.).



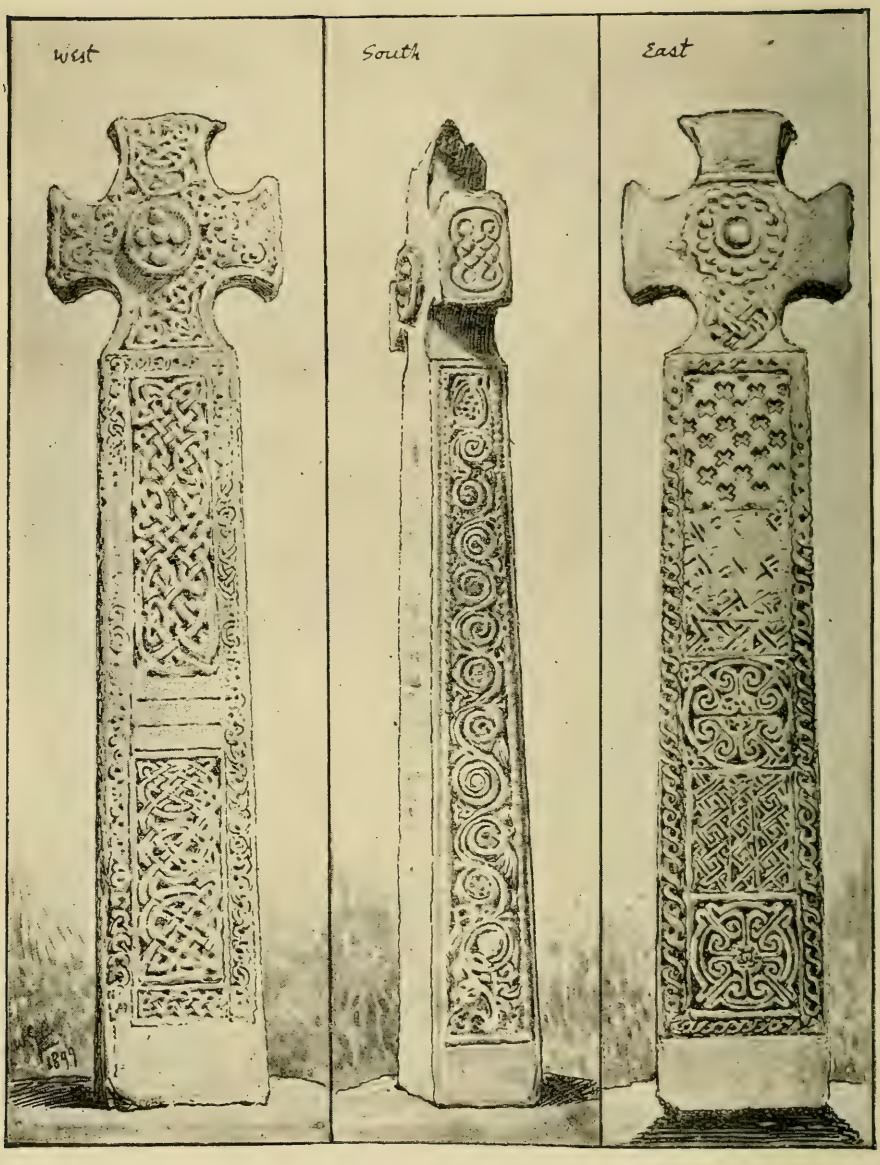
21. Fragments of Three Crosses, Halton (Lancs.).



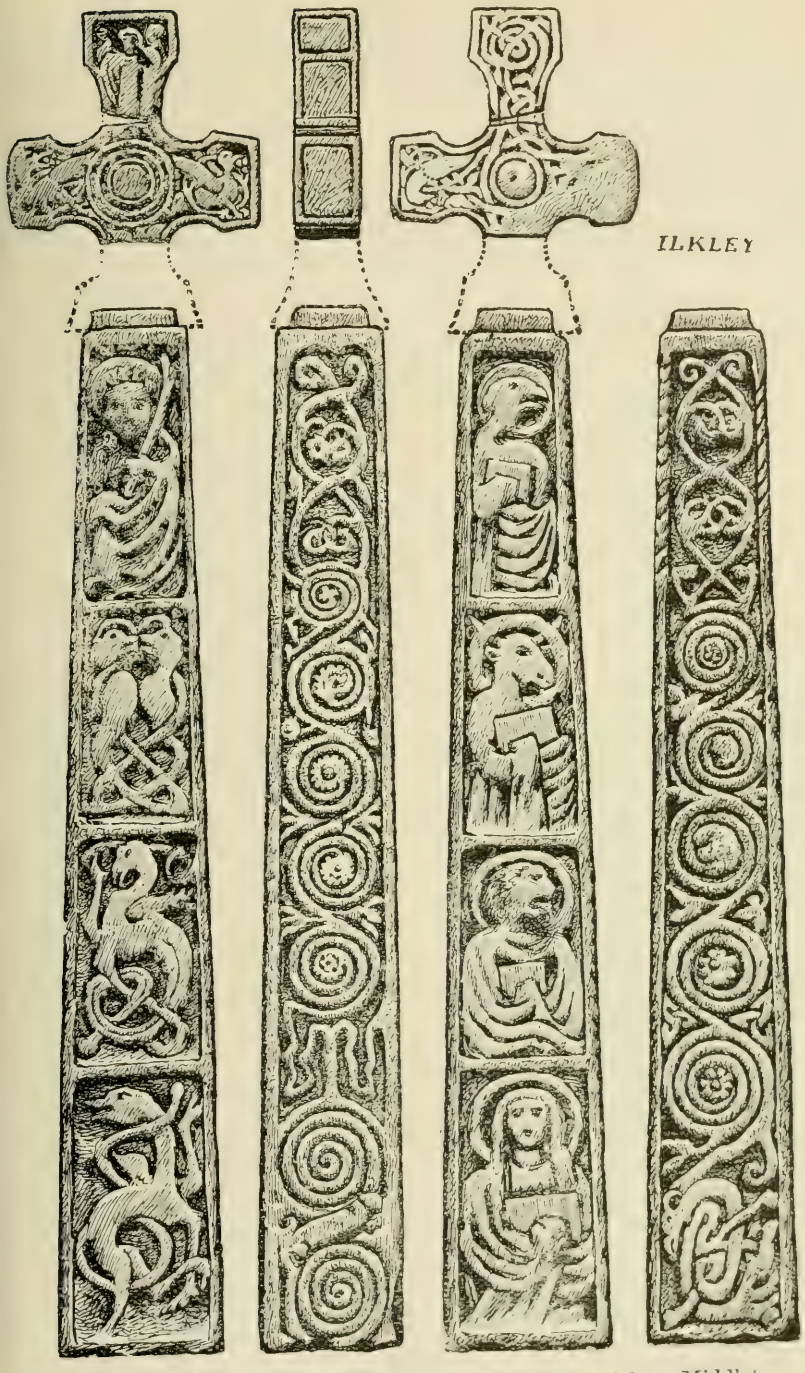
22. Fragments of a Cross at Dewsbury, with the Virgin and Child, Miracle at Cana, and the Loaves and Fishes.



23. The Second Cross-shaft at Ilkley.

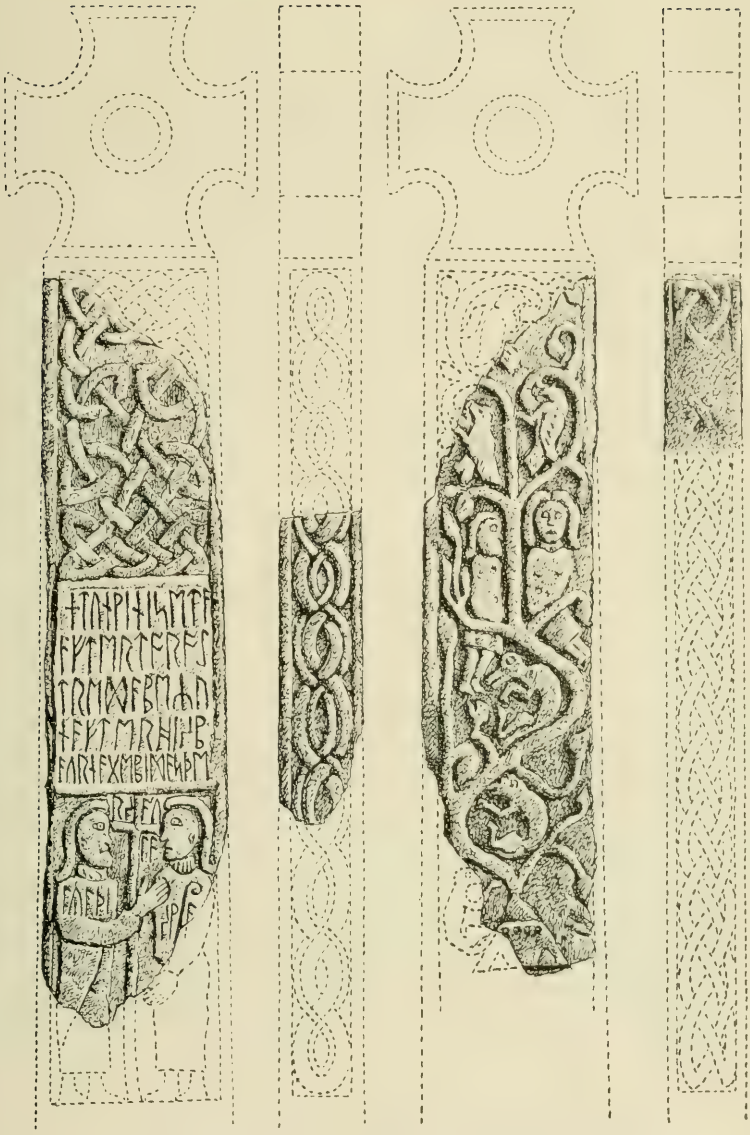


24. Cross at Irton (Cumberland).

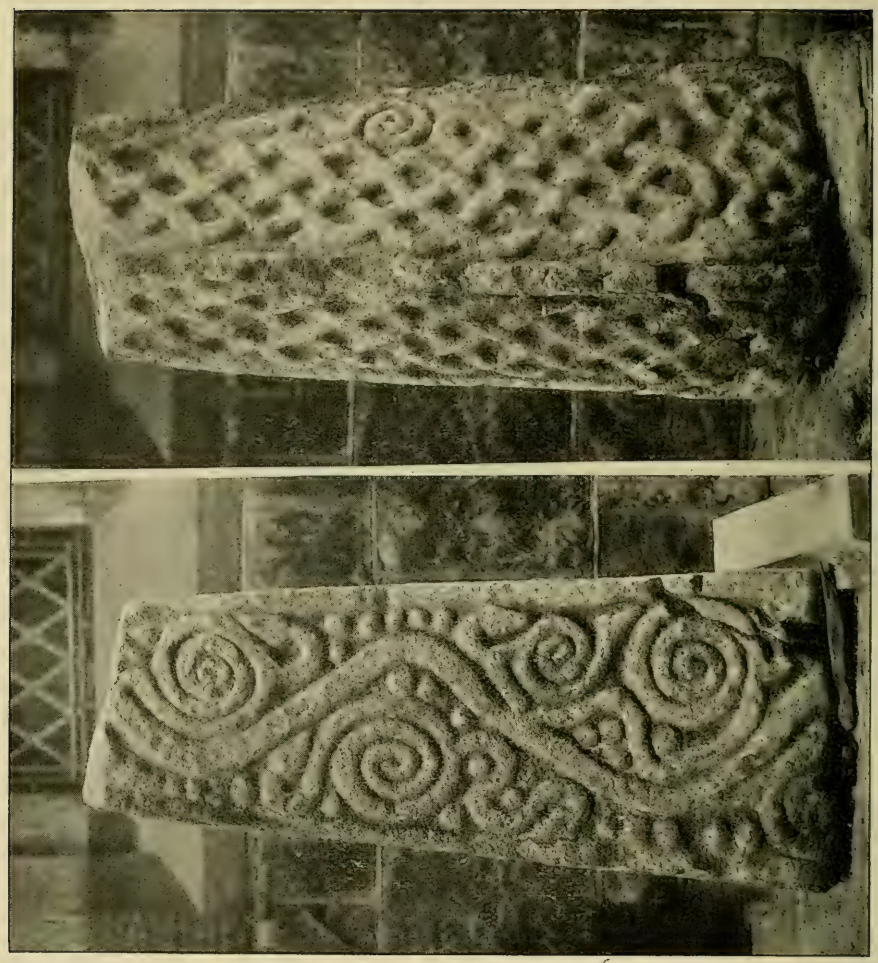


25. The Tallest Cross at Ilkley Church, with the head from Middleton Hall.

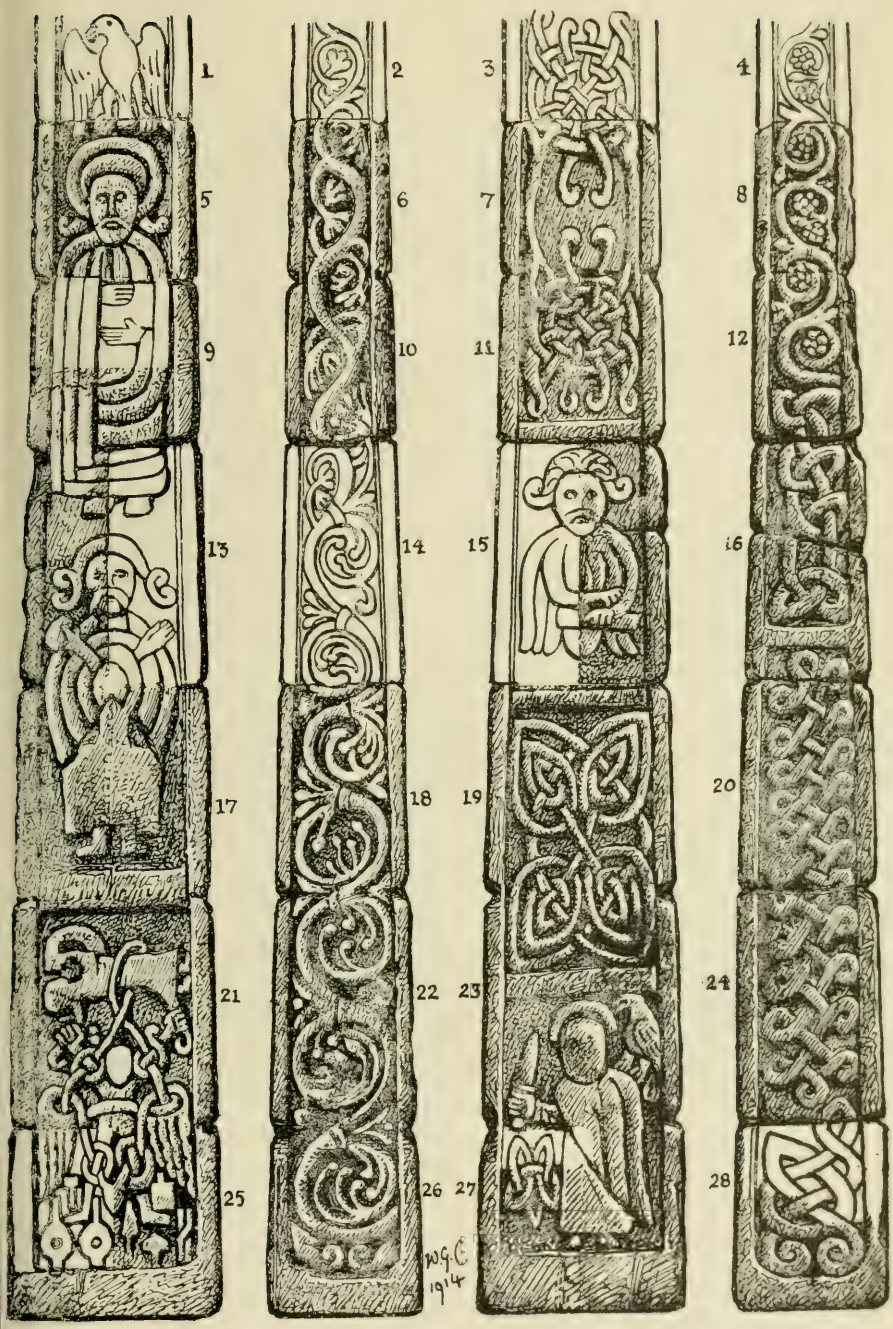
KIRKBY WHARFE
COLLINGHAM



28. The "Tunwini" Cross, Urswick-in-Furness.

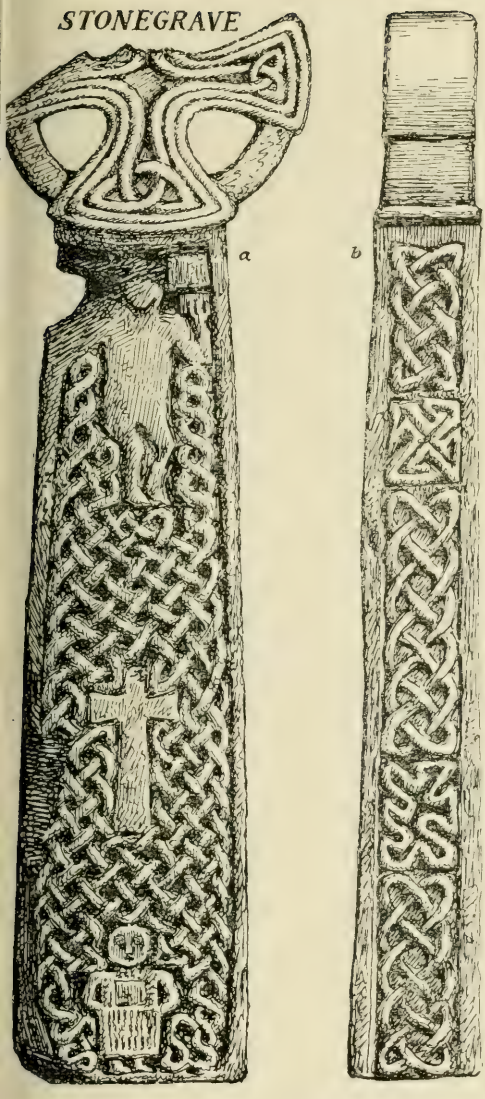


29. Cross Fragment at St. Mary Bishophill Junior, York. Photo. by W. Watson.

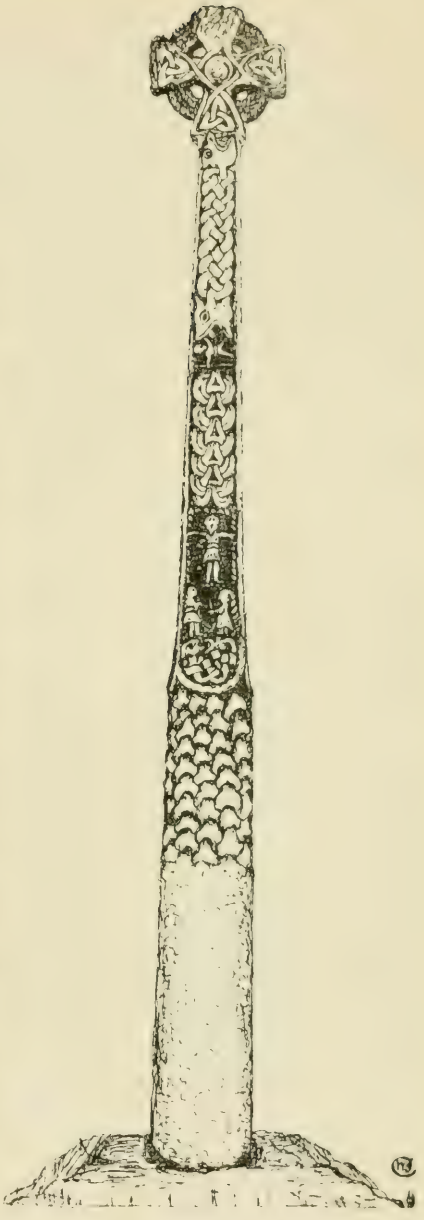


30. Cross-shaft at Leeds Parish Church.

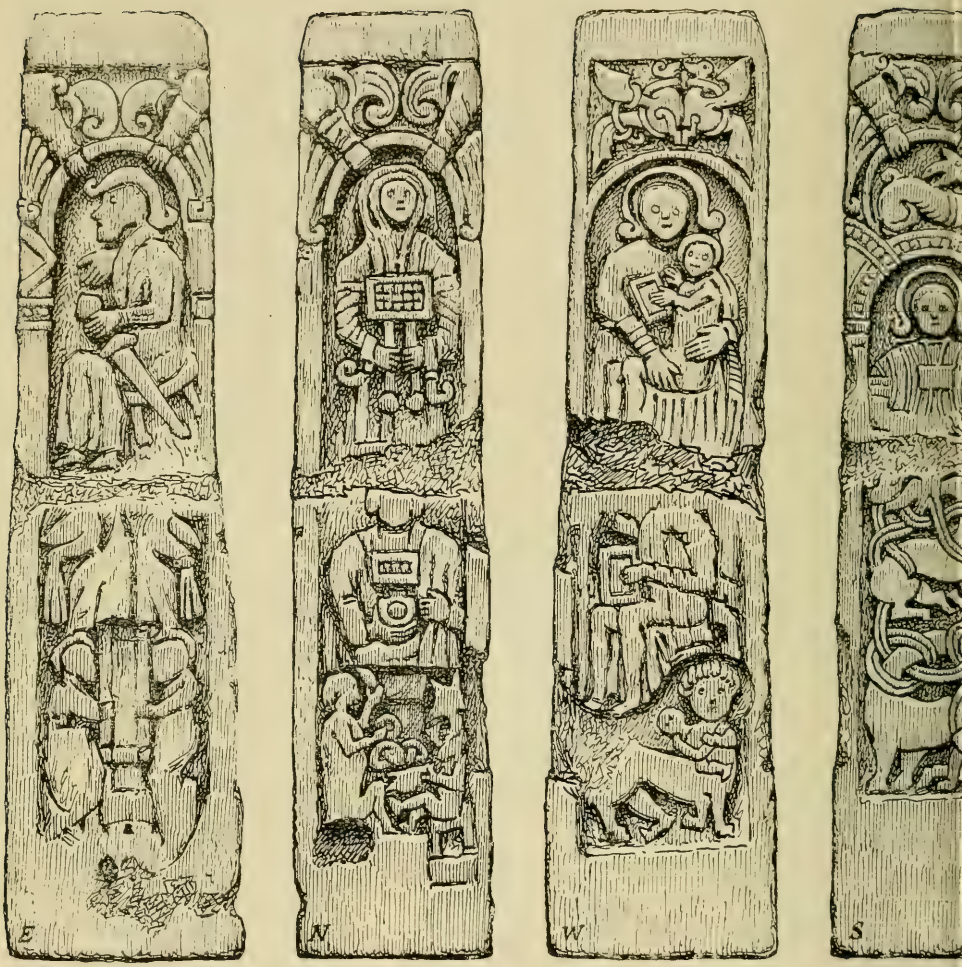
31. Cross at Dearham (Cumberland). Drawn by the late Rev. W. S. Calverley, F.S.A.



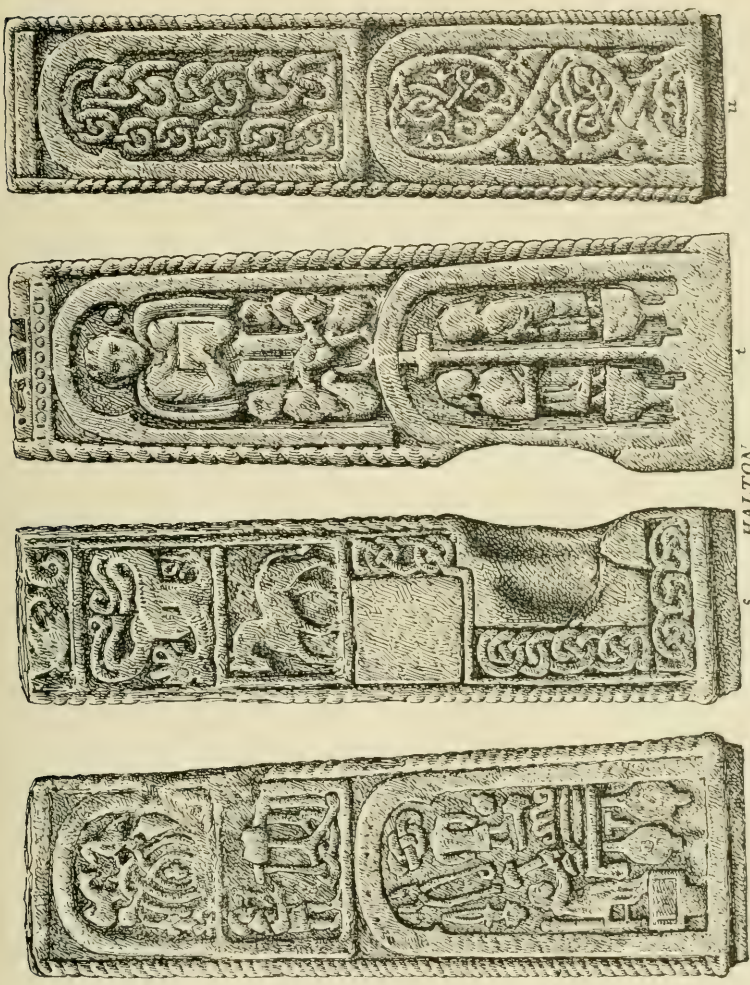
32. Cross at Stonegrave (Yorks.).



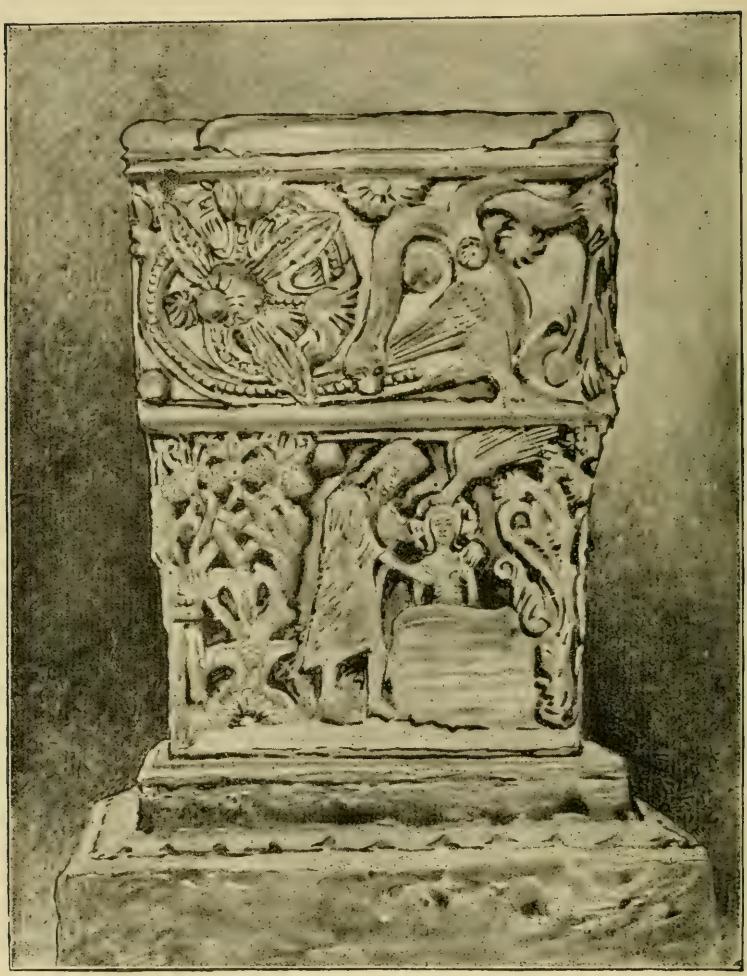
33 Cross at Gosforth (Cumberland). Drawn by the Rev. W. S. Calverley.



34. Cross-shaft at Nunburnholme (Yorks.).



35. The "Sigurd" Cross-shaft, Halton (Lancs.)



36. The Font, Bridekirk (Cumberland).

12th January, 1917.

Chairman—G. M'LEOD STEWART, V.P.

Sheriff Court Book of Dumfries (2nd October, 1537-31st July, 1538).

By Sir PHILIP J. HAMILTON-GRIERSON.

I.

INTRODUCTION.

This short legal fragment, which is preserved in H.M. Register House, Edinburgh, consists of seven folios, and contains a record of proceedings in court from 2nd October, 1537, to 25th June, 1538. It will be observed that with the exception of the court held on the former date in the Tolbooth of Dumfries, all the courts were held at Penpont. The head burgh of a sheriffdom was the place where the Sheriff Court of right ought to be held, unless inveterate custom had sanctioned its holding elsewhere. Such at least was the rule in later times. But earlier the courts had been more ambulatory.[1] Thus we find an Aberdeen Sheriff Court held at the Standing Staines of Huntlie,[2] and from an Ayr Sheriff Court Book[3] of the sixteenth century we learn that the court was held on lands the title to which was in dispute. Again, on 30th January, 1481-82, a decree pronounced in a court held at Penpont by Robert Crechtoun of Sanquhar, Sheriff of Dumfries, narrates the consent of the parties and their affirmation of the day and place as lawful.[4]

The difficulty in the present case arises from the fact that the session of the court at Penpont occurred not once only,

1 *Earl of Hyndford v. The Burgh of Hamilton*, 1740, *Mor. Dict.*, 3104; cp. *Innes v. Innes*, 1622, ib. 3101.

2 *Records of the Sheriff Court of Aberdeenshire*, ed. by D. Littlejohn, Aberdeen, 1904 (New Spalding Club), i., 153.

3 MS. in H.M. Reg. House, Edinburgh.

4 *Hist. MSS. Com. XV. Report*, London, 1897, *App.*, pt. viii., p. 48, No. 96.

but on several occasions spread over a period of six months, and that several of the cases heard before it did not arise at the instance of persons or in regard to matters belonging to that place or the surrounding district, but were concerned with questions connected with lands in Annandale and persons resident there. There was, so far as I have been able to discover, no public event such as a visitation of the plague or the occurrence of an English incursion to account for the change of venue. At the same time it is not to be forgotten that many cases and many jurors came from Glencairn and other parishes in the neighbourhood of Penpont, and that the Sheriff-Depute, who frequently acted in disposing of the business of the court, held the lands of Bellibocht in Glencairn, and may have resided in that parish.

In order to make the contents of our Sheriff Court Book intelligible, we propose to give a short account of civil procedure in the Scots Sheriff Courts in the early sixteenth century, so far as that procedure is referred to in cases which the book contains. It is to be kept in view that the authorities upon which we rely are concerned with the practice of the Baron Courts rather than with that of the Sheriff Courts. But as the Sheriff Court was truly the King's Baron Court,[5] what holds true of the regulations of the Baron Court may be regarded as applicable, at least in great measure, to the early Sheriff Court.

As early as the reign of David I. Scotland was divided into sheriffdoms, and the Sheriff acted as the King's minister in the execution of Crown writs and in the conduct of legal proceedings, civil and criminal. The Sheriff's was thus a delegated jurisdiction, and the Sheriff's Court was the King's Court. It was, as we have seen, the King's Baron Court, at the head courts of which all freeholders were bound to attend. Those who were bound by the terms of their infeftments to give suit—i.e., attendance at the King's Court—only might appear by their suitors or proxies; while those who were bound to give suit and presence were required to attend in

[5] See my article "The Suitors of the Sheriff Court," *The Scot. Hist. Review*, xiv., 2; Erskine, *Inst.*, i., 4, 2.

person. It is quite true that the latter also appointed suitors, but this appointment did not free them from the burden of coming to court. It served rather the purpose of bringing to court a body of men who were skilled in law and legal procedure to act as jurors and assessors. These suitors had to prove in examination their knowledge and capacity before they were admitted to office, and appear to have advised the freeholders and the judge both as to law and practice. Neither the Sheriff nor his deputes were trained lawyers; they summoned the court and presided over it, but they did not make its judgments. The selection of the jurors was determined by considerations of position and character and of acquaintance with the facts and circumstances of the matter upon which their verdict was sought, rather than in respect of their legal acquirements. And, accordingly, the advice of the suitors who had at least some legal experience was necessary, and ought to have been welcome.[6]

While the terms of the decision to be given were being discussed, the Sheriff retired; and when these had been settled he was recalled, and the decision was pronounced by one of his suitors called the deemster. If either of the parties was dissatisfied with it, he was required, if he would make his dissatisfaction effectual, to give instant expression to it. He was bound, to use the words of the Scots version of the *Quoniam Attachiamenta,* to "say againe it" before "he turn his taes quhere his heills stude," and to give at least one reason for gainsaying it.[7] The statute, 1429, c. 6,[8] varied the provision by enacting "qua sa wil false a domme sal nocht remufe oute of the place that he standis in quhen the domme is gevin na zit be avisit na spek with na man quhil the domme be agayne callit that salbe within the tyme that a man may gang esily xl payss and that to be comptit efter the consideracione of the Juge and the courte." The formula in use was: "This dome is false, stynkand, and rottin in the self and

[6] See the article "The Suitors of the Sheriff Court," cited above.

[7] *Quon. Attach.*, c. 9; *Fol. Acts*, i., 649; Skene's *Scots Version*, c. 13.

[8] *Fol. Acts*, ii., 18.

therto I streik a borch and that I will preiff."[9] Later the formula was changed to: "I am grattumly hurt and injurit be the said dome, therfore I appele and find ane borcht in the officiaris hand of the court to pursue the said appelatione conformand to the law made of before."[10]

We find early notices regarding the Sheriff's clerk and his sergeant or officer, of whom the former was entitled to two shillings out of every fine, and the latter to a colpindach[11] or thirty pence.[12] It was the business of the Sheriff's clerk to call the suits—i.e., the names of the lands in respect of which suit or suit and presence was due[13]—and to enter the names of those for which no appearance was made, so that fines might be imposed upon the absentees. In the case of our Sheriff Court Book these lists have not been made out, although we find the note—"sutis callit. Court lachfully affermit. Absentes sequuntur."[14]

In civil cases the proceedings were initiated by the King's brieve or letter addressed to a judge directing him to try by a jury the points stated in it.[15] These brieves have been described as "the foundation of all civil process of old;"[16] and were framed to cover such a variety of matters that every class

[9] St. 1429, c. 6; *Fol. Acts*, ii., 18; *Frag. Coll.*, c. 8; *Fol. Acts*, i., 742.

[10] St. 15th March, 1503-4, c. 51; St. 20th March, 1503-4, c. 46; *Fol. Acts*, ii., 246, 254.

[11] A young cow (Skene, *De Verb. Sign*, *s.v.* "colpindach").

[12] *Leges Malc. Makken*, c. 7; *Fol. Acts*, i., 710.

[13] See the article, "The Suitors of the Sheriff Court," cited above.

[14] See Fol. 7. In the Sheriff Court Books of Aberdeen, Fife, Linlithgow, &c., these lists are given *in extenso*.

[15] See Skene, *op. cit. s.v.*, "Breve;" Balfour, *Practicks*, Edinburgh, 1754, pp. 418 ff.; Stair, *Iust.*, iv., 3, 4-18; Ersk., *Iust.*, iv., 1, 3; Innes, *Lectures on Scotch Legal Antiquities*, Edinburgh, 1872; pp. 230 ff. An enumeration of brieves will be found in the Index to the *Folio Acts*. See also the list in F. Pollock and F. W. Maitland, *The History of English Law before the time of Edward I.*, Cambridge, 1898, ii., 565 ff. Examples of brieves will be found in the *Folio Acts*, i., 89 ff., 657 ff.

[16] Innes, *op. cit.*, p. 231.

of litigation was embraced by them.[17] They ran in a fixed form, which, according to a statue of 1491,[18] might not be varied under pain of nullity. Some of them were styled "retourable," because the verdict upon them was returned to the chancery by the judge to whom they were directed; while those which were not retourable served as the initiation of actions against special defenders to be insisted on before the judge to whom they were addressed. It may be that, as in England,[19] a brieve was not indispensable where the subject of the action was of trifling value or amount; and it is not unlikely that, as Kames suggests,[20] the Sheriffs, without any statutory warrant, modelled their procedure upon that of the Lords of the Session[21]—a usurpation of jurisdiction which, as it met a public need, may have gradually received the sanction of custom.[22]

Where the matter of the suit was one of civil debt or contract, or related to moveables, the first step was to attach the goods of the defender until he found security that he would appear and answer to the complaint;[23] and the complainer was also required to find security that he would insist in his action.[24] The summons was then served on the defender, who might excuse[25] himself thrice, on finding a cautioner in support

[17] *Id. ib.*, p. 223.

[18] c. 5; *Fol. Acts*, ii., 224.

[19] Pollock and Maitland, *op. cit.*, i., 553 f. It was only where a personal action related to a sum reaching or exceeding 40s that a brieve was necessary.

[20] Kames, "History of Brieves," *Historical Law Tracts*, Edinburgh, 1758, ii., p. 14. He observes that "a Court, which has often tried cases by a delegated jurisdiction, loses sight in time of its warrant, and ventures to try such cases by its own authority."

[21] An enactment of 1457 (c., 2; *Fol. Acts*, ii., 47-8) invested the lords of the session with an independent jurisdiction in actions for debt.

[22] Kames, *loc. cit.*

[23] *Quon. Attach.*, c., 1; *Fol. Acts*, i., 647.

[24] Stat. Reg., Alexandri II., c., ii; *Fol. Acts*, i., 402; Balfour, *op. cit.*, pp. 290, 311.

[25] Absence on the King's service, or at a public fair, or by reason of "bed-evil and infirmitie" ("infirmitas lecti") was ad-

of each excuse; and in respect of each failure to appear "a distress or poynd" ("districcio") was taken to be entered at each court until the fourth court. If the defender appeared at the fourth court and established the validity of his excuses, he escaped fine; but if he failed to appear in person or by proxy, he was liable to be fined for each default, to pay the complainer's expenses,[26] and "tine his principall action and his defence against the partie him followand."[27]

The only other point on which it seems necessary to say a word is the practice of warranty, which plays an important part in early court procedure. We find in our Sheriff Court Book that at a court held on 25th June, 1538, Andrew Howat (called David Howat in the subsequent entries) claimed a black horse in the possession of Wat Gurlaw, and that Gurlaw found Herbert Cunynghame as security that he would enter it—i.e., subject it to whatever the court might determine regarding it. At the next court held on 16th July, 1538, Gurlaw entered the horse and also his warrand, Robert Kirkpatrick, and Kirk-

mitted as the only valid excuse ("essonzie," "essoign," "essonium") in proceedings under a brieve of right within Burgh (*Quon. Attach.*, c., 40; *Fol. Acts*, i., 655). Other excuses were sometimes accepted (see *Regiam Maj.*, i., 7; *Fol. Acts*, i., 599; Balfour, *op. cit.*, pp. 344 f., 349). Excuses had no place in proceedings following on a brieve of mortancestry (*Quon. Attach.*, c., 35; *Fol. Acts*, i., 654); or in a brieve of distress for debt, because in that case it was directed in the brieve that, on proof by the creditor, the debt should be paid at once (*Quon. Attach.*, c., 34; *Fol. Acts*, i., 653); or in recognosing novel disseisin (*Reg. Mag.*, iii., 32; *Fol. Acts*, i., 631); or in an inquest or assize between two persons (*Quon. Attach.*, c., 47; *Fol. Acts*, i., 657; *Regiam Maj.*, iv., c., 51; *Fol. Acts*, i., 640). As to their admission in disputes between majors and minors, see *Regiam Maj.*, iii., 26, 27; *Fol. Acts*, i., 629.

[26] *Quon. Attach.*, c., 3; *Fol. Acts*, i., 648. It is to be observed that in proceedings following on a brieve of right, e.g., where the subject of complaint was that the complainer's lands were withheld from him, the course of the action differed somewhat from what is stated in the text. It was only after persistent default by the defender to appear in response to repeated summonses that the lands were finally adjudged to the complainer (see *Regiam Maj.*, i., 5; *Fol. Acts*, i., 598; cp. Balfour, *op. cit.*, p. 310).

[27] Skene's *Collection*, "The Forme and Maner of Baron Courts," cap. 24.

patrick offered to produce his warrand at the next court, and found Thom Maxwell as security that he would then and there enter the horse and his warrand. At the next court held on 30th July, 1538, Kirkpatrick enters Robin Kirkhat as his warrand to the court as the third court, and finds Maxwell as security that he will enter the horse or else the warrand at the next court as the fourth court and "court perempter." The explanation of these elaborate proceedings is this: When a man claimed a certain article in another's possession on the ground that it was his own property, the possessor might either allege that the article was his and that he could produce a warrand to speak to the fact, or he might admit that it was not his but that he had it on loan or for safe-keeping or on hire or in security or on some such title. If he averred that the thing claimed really belonged to a third party, the latter was summoned to appear, and the possessor was required to find security that he would enter in court the thing claimed. If the third party obeyed the summons and stated that the article was his, the possessor was free of the claim, and the true owner took his place as defender, and was bound to make good to the possessor any loss which he had sustained.[28] Where the subject of the claim was land, if the warrand did not appear and the possessor lost his action, he could sue the warrand for a portion of land equivalent to that from which he had been evicted.[29] The warrand might call his warrand, and the latter might call his warrand, who enjoyed a similar right;[30] and while the warrands were being discussed the principal action slept.[31] Each warrand could excuse himself thrice.[32]

[28] *Regiam Maj.*, i., 15; *Fol. Acts*, i., 602 f.; *Quon. Attach.*, c., 6; *Fol. Acts*, i., 648.

[29] *Regiam Maj.*, i., 20; *Fol. Acts*, i., 604.

[30] *Regiam Maj.*, i., 22; iii., 11; *Fol. Acts*, i., 604, 625. See *Quon. Attach.*, c., 6; *Fol. Acts*, i., 648; Balfour, *op. cit.*, pp. 317, 324, 326.

[31] Balfour, *op. cit.*, p. 326.

[32] *Regiam Maj.*, i., 20; iv., 37; *Fol. Acts*, i., 604, 638.

II.

SHERIFF COURT BOOK OF DUMFRIES (2ND OCTOBER, 1537-31ST JULY, 1538).

fol. 2] The Sherif Court of Drumfres, haldin in ye tolbuyt of ye samyn be ane honorable man Niniane Crechtoune of bellabyt, sherif wardir, the secund dai of ye moneth of October, in ye zer of god lmvcxxxvii zeris—Sutis callit. Court lachtfully affermit, absentis amerciit.

Inquisitio.

The lard of closburne, the lard of kyrkmychell, Jhone Creichtoune, Master George dalzell, Jhone Cunynghame of birkshaw, Lard of dalquhat, lard of creachane, Alexander cottis, alexander kirkpatrik, oswald cunynghame, Andro wilson, Barthole Smart, lard of Inglistoun, James crechtoun, petir macquhone.

The samyn day Jhone gordoun & Jhone greirsone are chargit in plane court to compeir in ye nixt sherif court to heir & see cognitioun tane eftir ye form and tenor of our souerane Lordis lettres purchest be ye said Jhone gordoun aganis ye said Jhone greirsone.

The samyn day all accionis movit betwix ye lard of Kyrkmychell and all uthir glencorss are continuit to ye nixt court wt consent of bait ye parteis and warrant to keep ye samyn eftir ye forme and tenor of ye preceptis institit upone of befoir.

The samyn day Jhone greir and thomas gordoun for hymself and Katherin greir are compromittit to stand and abyde at ye decrete, consale, sentence arbitrale, and finale deliverance of ye lard of craigdarroh & symon cunynghame for the part of the said thomas and katherin, & of cuthbert greyr and robert greir for ye part of ye said Jhone greir and george cunynghame oursman anentis all accionis movit betwix yame all tyme bygane to yis day, & in speciale anentis ye spuylze of certane brekanis spuilzeit of ye said Jhonnis ground, quhilkis Jugis and oursman hes tane apoune yame ye saidis actionis, and sall meit ffor to decide ye samyn at castelpharne ye xii day of October instant, and deliuer and decerne yr upone fourty dais yreftir.

The samyn day oswald cunynghame is boundin souertie to thomas amwligane yat justice salbe minsterit to him of John makclwne in ye barone court of glencarne of ane ox acclamit be ye said thomas of ye said John and yat upon tiisday ye nynt day of October nixt tocum.

Ye samyn day David younger is in amerciament of ye court for falt of entre as he yat was lat^fully attechit to William Wilsoun chalaner. Dome gevin be rob Lowrie.

fol. 3] The samyn day the lard of craigdalroc forespeker for scharp in ye accioun and causs movit for marioune maxwell aganis hym protestit yat geif ye said marioune producit nocht hir previs at ye nixt court, as ye ferd court, yat ye said scharp mycht be dischargit of his clame.

The sherif court of Drumfres haldin at penpunt ye vi day of ye monet of November ye zer of God lmvcxxxvii zeiris be Niniane Crechtoun and Edward Jhonstoun deput. Sutis callit. Court lat^fully affermit, absentis amerciit.

Inquisitio.

Lard of Lag, lard of Kyrkmychell, lard of Ross, Johne charteris, Johne crechtoun, Master George Dalzell, archibald Douglas, Jhone cunynghame of birkshaw, lard of creachane, cuthbert fergussoun, lard of Croglyne, Robert Charteris, Jhone Maxwell, petir Macquahen, alexander cottis.

The samyn day Jhone Gordoun hes renuncit ye accioun and process of law movit in ye consistory be hym aganis Jhone greirsone anentis ye clame of xi ky & oxin acclamit be him of ye said John greyr.

The samyn day Jhone gordoun of ye park of yat ane pt. & Jhone greirsone on yat uthir part are compromittit, bund, and oblist to stand and abyde at ye decreitt, consale, sentence arbitrale, and finale deliverance of ye lard of holm for ye part of ye said Jhone Gordoun, Gilbert Greir in penphillane for ye part of ye said Johne greir, and Niniane crechtoun oursman, anentis all questions, quareles, and debaitis movit betwix yame all tyme bygane, and in speciale anentis ye clame of xi ky & oxin acclamit be ye said Jhone gordoun upon ye said Jhone greir, and sall meit at Castelpharne upon thurisday ye xv day

of November next tocum and deliver yrintill within xx days yaireftir.

The samyn day the lard of Kirkmychell hes producit ye Kingis lettres in ane accioun & causs movit be hym aganis ye glencorss and ye saidis glencorss hes allegit ye actioun advocatit afore ye lordis and thairfor yai acht not to answer, quhairfor ye sherif wt ye consent of bayt ye pteis hes continuit ye said actionis to ye nixt court.

The samyn day it is assignit to thomas M'Cubbin to compeir in ye nixt court to bring thom gordoun quhilk he allegis is his warand of ye occupacioun of ye v sh. landis of craigleriane to answer to Thom Momersoun chalanir for ye wrangus occupacioun of ye samyn and failzeand yrof to answer to ye said Thom Momersoun chalanir as law will.

fol. 4] The samyn day thom momersoun offerit hym to preif lauchfully at ye nixt court yat he had in assedacioun of ye thre rudis of land quhilk thom gordoun allegit he occupit wrangusly.

The sherif court of drumfres haldin at penpont ye xx day of december in anno xxxvii be niniane crechtoun of bellebot, sherif wardor. Sutis callit. court lachfully affermit. absentis amerciit.

Inquisitio.

Lard of Inglistoun, Jhone cunynghame of birkshaw, Lard of newtoun, gilbert greir in craignie, gilbert Wilsone, master george dalzell, Robert charteris, Johne crechtoun, Robert dalzell, petir makquhene, John crechtoun in blakadie, thom crechtoun, Robert greyr.

The samyn day cristiane amuligane hes constitut creat & ordanit gilbert greirsoun and Sir thomas greirsone or any ane of yame hir procurators to wyn or tyne in all hir accionis movit or to be movit in ye sherif court, & promittit, ratif., &c.

The samyn day it is assignit to William Jhonstoun to bring his warand to ye nixt court for ye wrangus haldin and intrometting wt ane gray meyr acclamit be matho broune to pertene to him as his propir geir, and failzeing of ye said warand to answer to ye said matho his chalener.

The samyn day Jhone clerk alias amwligane and thom clerk ar in amerciament of yis court for falt of entre as yai yat wes lachfully attechit to William fergussoun chalener ffor ye spuilzeing of kow. Dome gevin be andro makcron.

The samyn day andro portar offerit hym to preiff lachfully at ye nixt court yat paite glesseld promittit to pay him xxvii s. ix d. yat he wes in awin to thom greyr bastard ye tyme of his decess and yat becauss ye said Andro has ye Kingis gift yrof.

The samyn day all actionis movit betwix thom gordoun and thom momersoun ar continuit with consent of bait ye pteis unto Witsounday nixt tocum.

The samyn day Johne gracy and thom wilsoun are compromittit, bund, and oblist to stand and abyde at ye decrete, consale, sentence arbitrale, & finale deliverance of yir personis underwrittin yt is to say of Gilbert Wilsone for ye said thomas wilsone & of Johne Wilsone for ye part of ye said Johne gracy and of andro Wilsone oursman anentis all questionis
fol. 5] and quereles indoit betwix yame, and sall meit yairupone all in ane voce at ye kirk of tynrone ye xii day eftir zuile and deliver yairuntill betwix yat day and candelmas day yeftir followand.

The samyn day in ye accioun and causs movit betwix matho gledstanis of Kelwod of yat ane part and Margaret Jardyng lady of Kelwod upon yat uthir pt. anentis ye terss of v crovinsworthe of land acclamit be ye said Margaret, the Inquest above written decernis and deliveris all in ane voce the said mathow to brouk ye said lands and ye said Margaret to have na terss yof, and yat becauss ye said mathow hes producit chartir and sasing of ye samyn maid to hym for liferent be umqule thomas gledstanis his father, and wes in possessioun yrof befoir ye decess of umquhile Johne gledstanis hir husband.

The sherif court of drumfres haldin at penpont ye xxviii day of Januar ye zer of god lmvcxxxvii zeris be Niniane crechtoun of bellebot sherif wardor. Sutis callit. absentis amerciit.

Inquisitio.

Lard of Closburn, lard of Lag, lard auchingassill, Johne

Crechtoun, Master George dalzell, Johne maxwell, John charteris, andro kirkpatrik, lard of craufurdtoun, John cunynghame of birkshaw, cuthbert fergussoun, lard of ross, Johne cunynghame, lard of creachane, Alexander Cottis.

The samyn day the accioun movit be ye lard of blakmyr aganis ye lard of ballagane is continuit to ye nixt court wt consent of bayt ye parteis.

The samyn day gilbert greir hes dischargit ye process led in ye consistory aganis andro portar anentis ye clame of xxii Lib. or ony pt. yairof acclamit apone ye said Andro be ye said gilbert.

The samyn day it is assignit to andro portar to acquiit hym lachfully at ye nixt court yat he acht nocht to unquhile nichell thomsoun ye tyme of his decess xxii Lib. or ony pt. yairof and failzeand yrof to answer gilbert greir and ye said nichell wiff.

The samyn day Jhone clerk alias amwligane is in amerciament of yis court for falt of entre as he yat wes lachfully attechit to Willeam fergussoun chalantir for ye spuilze of certain zowis. Dome gevin be Johne connell.

The samyn day pait corssoun hes renuncit ye process led in ye consistory be hym aganis Johne Greyr, &c.

fol. 6] The samyn day William Jhonstoun hes producit Jhon Jonstoun for his warand of ye meir acclamit be Mathow broune, and ye said Johne hes allegit Nicholl Jonstoun to be his warand, and it is assignit to him to produce his warand ye said Nicholl & ye said meyr and to do ye samyn Edward Jonstoun is boundin souerte.

The sherif court of drumfres haldin at penpont the ferd day of June in anno xxxviii be Johne Crechtoun & Edward Jonstoun sherif deputis. Sutis callit. Court lachfully affermit. Absentis amerciit.

Inquisitio.

Johne greirsone of ye lag, Johne matland of achingassell, andro Roresoun of bardennot, thomas fergussoun of craigdat, william kyrkpatrik of kirkmychell, archibald douglas, andro

kirkpatrik, thom wilsone of Crogline, John edgar, John douglas, thom greyr, petir greyr, gilbert greir in camling.

The samyn day harbert Maxwell is in amerciament of yis court for falt of entres as he yat found his lands and gudis borcht to follow and pursew ane fenss maid upone saml brovne guidis. Dome gevin be Johne connell.

The samyn day Alex brovne is dischargit of harbert maxwell chalener quhill he be newly attechit.

The sherif court of Drumfres haldin at penpont ye xxv day of June anno xxxviii be niniane crechtoun of bellebot, sherif wardor. Sutis callit. court lachfully affermit. Absentis amerciit.

Inquisitio.

John greirsone of lag, Andro crechtoun, Johne crechtoun of Kirkpatrik, Robert charteris, Johne cunynghame of birkshaw, master George dalzell, cuthbert fergussoun, John edzer of Inglistoun, Andro crechtoun, alexander cottis, petir dennoune of creachane, Roger charteris, John wrycht, Johne crechtoun of burngranis, John patersoun.

The samyn day the laird of aldgart maxwell is in amerciament of yis court for falt of presens. Dome gevin be rob Lowrie.

The samyn day Herbert cunynghame is becumin souertie to Wat Gurlaw to entyr ane blak horss, chalanit be andro Howat or ellis his warand quhilk horss is prisit to xix s.

fol. 7] The sherif court of Drumfres haldin in penpont the xvi day of July in anno xxxviii be Johne crechtoun & edward Jonstoun, sherif deputis. Court lachfully affermit. Sutis callit. Absentes sequuntur.

The samyn day Watt Gurlaw hais enterit ane blak horss challentit be david Howat and his warand Roddie Kyrkpatrik, and ye said Roddie hais allegit ane warand and desyris ye nixt court to produce hys warand and hais fund Thom Maxwell in Drumfres borcht for hym yat he sall enter ye said horss & his warand at ye nixt court or ellis incur ye danger and price yrof.

The samyn day ye sherif deputis hes continuit all actionis to ye nixt court in ye same effect yin as yis day.

The sherif court of Drumfres haldin at penpont ye penultimate day of July be John Crechtoun & Edward Jonstoun sherif deputis. Sutis callit. Court lachfully affermit. absentes subsequuntur.

The samyn day Roddie Kyrkpatrik hes enterit his warand Robin Kirkhat for ye blak horss chalentit be David Howat to ye court as ye thryd court, and ye said robert has allegit ane warand & hais fund thom Maxwell borcht to entir ye horss or ellis ye warand at ye nixt court as ye ferd court & court perempter.

III.

Notes Regarding the Persons Mentioned in the Sheriff Court Book.

It may be of some interest to endeavour to identify some, at all events, of the persons who are mentioned in our Sheriff Court Book.

Three Sheriff-Deputes are mentioned—John Crichton, Edward Johnstone, and Ninian Crichton of Bellibocht, who is styled "Sheriff Wardir." It seems probable that the first and third were Crichtons of Kirkpatrick. On 30th January, 1481-82, Edward Crichton of Kirkpatrick served on an assize;[33] and on 10th August, 1484, we find a Crown charter, confirming a charter of the lands of Bellebeth and others, by Sir Robert Crichton of Kirkpatrick in favour of his son Edward.[34] Edward's heir was his son Robert,[35] and his son John is mentioned in 1543 and 1547.[36] In 1525 Ninian was tutor to Robert, Lord Sanquhar;[36a] and it was owing to a deadly feud between him and James Douglas of Drumlanrig

[33] *Hist. MSS. Comm. XV. Report*, Pt. viii., 48.

[34] *R.M.S.*, ii., 1594.

[35] *R.M.S.*, ii., 2490.

[36] *Charters in H.M. Register House, Edinburgh*, 1318, 1896.

[36a] *Act. Dom. Conc.*, xxxvi., fol. 48.

that Edward Johnston, burgess of Dumfries, was made a Sheriff-Depute in 1531. The feud had its origin in the slaughter of one of Drumlanrig's retainers by some of Ninian's people; and Drumlanrig applied to the lords of Council for exemption, on behalf of himself, his kinsmen and servants, from appearing before Ninian and his deputes in their capacity of judges. Accordingly the lords, with consent of parties, appointed Johnstone to act in all cases in which Drumlanrig or those related to him were concerned.[37]

We come now to the jurors. The laird of Closeburn was Thomas Kirkpatrick. Of this member of a well-known family little seems to be ascertainable.[37a] We find a Crown charter, dated 12th May, 1538, in favour of Thomas, son and heir of Sir Thomas Kirkpatrick of Closeburn deceased, of the lands of Auchinleck and Newtown in the barony of Tibbers and sheriffdom of Dumfries.[38]

The laird of Kirkmichael was William Kirkpatrick, whose father, Sir Alexander Kirkpatrick, had an interesting history. On 2nd October, 1484, King James III. granted to Alexander Kirkpatrick and his heirs the lands of Kirkmichael and others as a reward for his great services in battle against the Duke of Albany, James, Earl of Douglas, and other rebels, and especially for his capture of the said Earl.[39] According to David Hume of Godscroft,[40] Earl Douglas was in 1483 taken prisoner at the battle of Burnswark by Alexander, a brother of the laird of Closeburn. This Alexander had been one of his own attendants, and on the Earl's surrender to him, kept him until he saw the King and obtained from him the Earl's life. The King gave Kirkpatrick the £50 land of

[37] *Act. Dom. Conc. et Sess.*, ii., fol. 184; *Act. Dom. Conc.*, xliii., fol. 91.

[37a] In 1525 Thomas was a pupil, his tutor being John Kirkpatrick of Alisland. He seems to have been brought up, firstly, by Robert, Lord Sanquhar, and on his decease by Ninian Crichton of Bellibocht (*Act. Dom. Conc.*, xxxvi., fol. 6).

[38] *R.M.S.*, iii., 1788.

[39] *R.M.S.*, ii., 1603.

[40] *The History of the House and Race of Douglas and Angus*, Edinburgh, 1743, i., 380.

Kirkmichael, which, says Hume, "is possesst by his heirs until this day." He was knighted, and was alive in 1532.[41] Apparently Robert, his eldest son, the husband of Marion Maxwell,[42] predeceased him.[43] He died before 23rd July, 1537, the date of a charter in favour of his son and heir, William.[44]

The John Crichton next mentioned is probably John Crichton of Kirkpatrick, who is referred to as a juror at the court held on 25th June, 1538, and of whose family we have already spoken.

Master George Dalzell served as a juror at many of the courts. So far we have been unable to obtain any further information regarding him.

John Cunynghame of Birkshaw was probably connected with the family of the Earl of Glencairn. We find references to Philip Cunynghame of Birkshaw in 1497, 1514, and 1520,[45] and to Andrew Cunynghame of Birkshaw in 1518.[46] John Cunynghame died before 26th August, 1547—the date of an instrument of sasine in favour of his relict, Marjorie Cunynghame.[47] He had two sons, Andrew and Robert, and was apparently succeeded by the former.[48] We find several later notices regarding this family—an instrument of sasine in favour of Nicolas, daughter of James Grierson of Capenoch, and spouse of Robert, son of Cuthbert Cunynghame of Birk-

[41] *R.M.S.*, iii., 1204.

[42] She subsequently married Roger Gordon of Crago (see references in next note).

[43] See two instruments dated respectively 21st October, 1534, and 20th August, 1538 (Sir Marc. Carruthers *Prot. Bk.* (1531-61), fols. 20, 32; *R.M.S.*, iv., 2317).

[44] *R.M.S.*, iii., 1948. But see *ib.*, iv., 2317.

[45] *Lag Charter Chest*, 44, 84; Fraser, *Scotts of Buccleugh*, ii., 126.

[46] *Charters in H.M. Register House, Edinburgh*, 870. He was tutor testamentary of William Cunynghame of Cunynghameheid.

[47] Herbert Cunyngham, *Prot. Bk.* (1541-50), 65, printed in the *Trans. of the D. and G. N. H. and A. Society* (1913-14).

[48] *Ib.*, 37, 66, 78.

shaw, dated 31st December, 1664;[49] another such instrument dated 8th November, 1708,[50] in favour of John, Robert's son; and yet another, dated 19th November, 1709,[51] of half the lands of Birkshaw, in favour of James Grierson of Capenoch by John Cunyngham, with consent of his wife, Agnes Kirk.

The laird of Dalquhat was probably either the Malcolm M'Gachane of Dalquhat who served as juror in 1505 and 1520,[52] or Alexander M'Gachane of Dalquhat who acted in the same capacity in 1544.[53] We find notices of several lairds of Dalquhat of this name:—Archibald in 1566,[54] James in 1614,[55] John in 1648;[56] and on 30th March, 1743, Robert was served heir to his father, Robert M'Gachen of Dalquhat.[57]

The laird of Creachane was Petir Dennoune. We find a charter of the time of King Robert I. in favour of Adam or Allan Dennun of the lands of Calsehogill.[58] On 30th January, 1481-2, John of Dennen of Creochane served on an inquest;[59] and in a precept of sasine dated 4th March, 1498-99, John Dynnone of Creochane and his son Peter are referred to.[60] On 24th November, 1511, Peter had letters of license from King James IV. to sell his 5os worth of land of Glencors and Dalquhargzeane in the parish of Closeburn to Drumlan-

49 Recorded 3rd January, 1665 (*Gen. Reg. of Sasines*).

50 Recorded 20th November, 1708 (*Dumfries Part. Reg. of Sasines*).

51 Recorded 24th November, 1709 (*Dumfries Part. Reg. of Sasines*).

52 *Lag Charter Chest*, 48, 84.

53 *Hist. MSS. Comm. XV. Report, App.*, Pt. viii., p. 19.

54 Herbert Anderson, *Prot. Bk.* (1566-69), 12, printed in the *Trans. of the D. and G. N. H. and A. Soc.* (1914-15); *Reg. of Privy Council*, xiv., 300.

55 *Lag Charter Chest*, 188. See also a bond dated 28th October, 1601 (*Hist. MSS. Comm. XV. Report, App.*, Pt. viii., p. 69).

56 *MS. Reg. of the Comm. of Estates*, under date 14th October, 1648; H.M. Reg. House, Edinburgh.

57 *Services of Heirs.*

58 *R.M.S.*, i., App. ii., 302.

59 *Hist. MSS. Comm. XV. Report, App.*, Pt. viii., p. 48.

60 In the possession of Thomas Yule, Esq., W.S.

rig;[61] and he is mentioned in 1520, 1545, 1546, and 1549.[62] In 1566 he, his wife Christina Grierson, and his son Peter are referred to.[63]

Alexander Cottis seems to have been a parishioner of Glencairn.[64] As to Alexander Kirkpatrick, Oswald Cunynghame, and Andrew Wilson we have no information.

Barthole Smart is mentioned as a parishioner of Glencairn on 20th February, 1546-7.[65] A person of that name is frequently designated as being "in Marquhryne."[66] It seems that he was a merchant in Glencairn, and had obtained a charter of the $2\frac{1}{2}$ merkland of Marquhirn from the Earl of Glencairn in 1585.[67]

The laird of Ingliston was John Edzer. On 30th January, 1481-82, Uchtre Edgar of Ingliston served on an inquest;[68] and on February 21st, 1498-99, he was decerned to pay to the King and his Treasurer £40, in which he was bound for Cuthbert Greresone as surety that the latter would not vex nor trouble Margaret Akinzeane, relict of Donald Greresone, in the peaceable enjoyment of the merkland of Kere called Penmarte.[69] On 20th January, 1514-15, Agnes Langmure, with consent of her husband, Nicholas Edzar of Ingliston, granted a charter of certain lands in the county of Renfrew;[70] and it seems probable that John[71] was the next proprietor. We learn that in 1546

[61] *Hist. MSS. Comm. XV. Report, App.*, Pt. viii., p. 65.

[62] *Lag Charter Chest*, 84; H. Anderson, *Prot. Bk.* (1541-1550), 22, 79, 80, 81; *Charters in H.M. Reg. House*, Edinburgh, 1398.

[63] H. Anderson, *Prot. Bk.* (1566-69), 11.

[64] *Charters in H.M. Reg. House, Edinburgh*, 1392.

[65] *Ibidem.*

[66] H. Anderson, *Prot. Bk.* (1541-50), 37. See *Lag Charter Chest*, 143, 144.

[67] See *Smart v. Glencairn*, 8th March, 1619, *Acts and Decreets*, cclxxxviii., fol. 87.

[68] *Hist. MSS. Comm. XV. Report, App.*, Pt. viii., p. 48.

[69] *Act. Dom. Conc.*, ii., 332.

[70] *R.M.S.*, ii., 153.

[71] In our Court Book he is styled "of Ingliston" in the list of jurors at the court held on 25th June, 1538 (fol. 6).

some portion of the lands of Ingliston were in possession of John Edzar. His wife was Isabella Fergusson, and he had three sons—Uchtred, whose wife was Elizabeth Roreson, and Cuthbert and John.[72] It is stated in a notice of 1560 that John was in possession of the five merkland of Ingliston;[73] and he or his son John were jurors on assizes in 1607 and 1615.[73a] It seems probable that the lands passed shortly thereafter from the Edgar family.

Of James Crichton and Peter Macquhone we know nothing.

The laird of Lag was John Grierson, the son of Roger Grierson of Lag, who fell at Flodden, and Agnes, called by some writers Janet, daughter of James Douglas of Drumlanrig by Janet, daughter of David Scott of Buccleugh. He died before 10th July, 1559, having been twice married—firstly, to Nicolas Herys, by whom he had a son William, who succeeded him, and two daughters, Nicolas, who married John Charteris of Amisfield, and Jonet,[74] who married John, son and heir apparent of John Schaw of Haly. He married, secondly, Egidia, daughter of Sir John Kennedy of Culzean, by whom he had four sons—Roger, who eventually succeeded to the family estates, John, Thomas, and Roger, and two daughters—Elizabeth, who married James Lindsay of Barcloy, and Agnes, who married Archibald, son and heir of John M'Brayr of Almagill.

The laird of Ross was Roger Kirkpatrick. We find a reference under date 4th May, 1536, to him and his wife Katherine,[75] a sister of Thomas Kirkpatrick of Eliesland.[76] He died before 8th November, 1548, as Katherine is then

[72] H. Anderson, *Prot. Bk.* (1541-50), 39, 53, 93; *id.*, *Prot. Bk.* (1566-69), 37, 38.

[73] *Reg. of the Privy Council*, xiv., 300.

[73a] *R.M.S.*, vii., 320, 1258.

[74] Perhaps she was born of the second marriage.

[75] *Charters in H.M. Reg. House, Edinburgh*, 1125.

[76] *Ib.*, 1687; see 1688, 1689[6].

referred to as his relict,[77] and was succeeded by his son Roger.[78]

We have no information with regard to Archibald Douglas or Cuthbert Fergusson.

The laird of Croglin was Thomas Wilson. The earliest notice of this family known to us is a memorandum dated 2nd May, 1537, recording that the procurator for Thomas Wilson and Marion Kirkpatrick, executors of the late John Wilson of Croglin, indemnify Bartholomew Smart in regard to a certain payment.[79] Thomas Wilson married Agnes Grierson, relict of John Gordon of Blakat.[80] She was probably his second wife and sister of Gilbert Grierson of Dalton, whose son Gilbert married Croglin's daughter about the year 1563.[81]

Of Robert Charteris and John Maxwell we know nothing.

The laird of Newtoun was Thomas Padzeane. He is mentioned as a witness in 1534, 1538,[82] 1567, and 1568.[83] On 11th September, 1605, Roger Paidzeane, his son, was served his heir;[84] and on 12th May, 1621, John Pedzeane was served heir to his father, Roger.[85] John married Elizabeth Dalzell;[86] and it seems to have been he who married as his second wife Elizabeth Kirko, relict of Thomas Grierson of Barjarg.[87]

Gilbert Greir in Craignie appears to have been a tenant of the lands. On 3rd October, 1520, Roger Grierson of Craignie served on an assize;[88] and in an instrument dated 29th May,

[77] H. Anderson, *Prot. Bk.* (1541-50), 49.

[78] *Hist. MSS. Comm. XV. Report, App.*, Pt. viii., p. 54.

[79] Sir Marc Carruthers, *Prot. Bk.* (1531-61), fol. 30.

[80] H. Anderson, *Prot. Bk.* (1541-50), 69, 84.

[81] *Dalton Charter Chest*, 14, 25, 31.

[82] Sir Marc Carruthers, *Prot. Bk.* (1531-61), fols. 20, 32.

[83] H. Anderson, *Prot. Bk.* (1566-69), 40, 74.

[84] *Inquis. Spec., Dumfries*, 30.

[85] *Ib.*, 106.

[86] See an instrument of sasine dated 17th July and recorded 20th August, 1621 (*Dumfries Particular Reg. of Sasines*).

[87] See an instrument of sasine dated 6th and recorded 8th April, 1642 (*Dumfries Particular Reg. of Sasines*).

[88] *Lag Charter Chest*, 84.

1528, Gilbert Grierson in Craignie is referred to as tutor of John Grierson of Lag.[89] In 1531 and 1548 he is mentioned as a witness.[90]

John Crichton in Blakadie—Perhaps the designation refers to "Blakadie *lie* Kirkland de Sanquhar."[91]

As to Robert Charteris, Robert Dalzell, Thomas Crichton, and Robert Greyr we know nothing.

The laird of Auchingassell was John Maitland. On 23rd August, 1369, George of Dunbarre, Earl of March, granted to John Mantalent, the husband of Agnes, the Earl's sister, and to Robert, their son, and to Robert's heirs, the lands of the barony of Tybris, including *inter alia* the lands of Auchyngasylle, excepting the castle of Tybris with Dalgarnok.[92] On 11th October, 1401, King Robert III. granted a charter of the lands of Tybrys to Robert Mantalent, knight.[93] On 3rd January, 1450-51, William Maitland of Thirlstane granted a charter of certain lands to his brother James and Giles Skrymgeowre, his wife;[93a] and on 11th May, 1506, James was returned as heir to his father, Robert Maitland in Achingassell, and other lands.[94] On 21st July, 1510, James granted a bond in favour of Drumlanrig;[95] and on 25th August, 1526, letters of respite were granted by King James V. to John, son and heir apparent of James.[96] On 25th April, 1541, the King granted a charter of the castle and mote of Tibris to his well-beloved esquire, John Maitland of Achingassell.[97]

We have no information regarding John Maxwell, John Charteris, and Andrew Kirkpatrick.

Crawfordton belonged to a branch of the Crichton family;

89 *Charters in H.M. Reg. House, Edinburgh*, 1026.
90 *Lag Charter Chest*, 89, 100.
91 *Inquis. Spec., Dumfries*, 48.
92 *Hist. MSS. Comm. XV. Report, App.*, Pt. viii., p. 32.
93 *Ib.*, p. 33.
93a *Ibidem.*
94 *Ib.*, 34.
95 *Ib.*, p. 14.
96 *Ibidem.*
97 *R.M.S.*, iii., 2342.

but we are unable to say with certainty what was the name of the laird at the date of our Sheriff Court Book. On 5th March, 1471-72, Alexander of Crechton of Crawfordstoun served on an inquest.[99] On 11th May, 1506, Robert Crichton of Crawfordton acted in a like capacity;[100] and in 1546 John Crichton of Crawfordton was a witness.[101] Andrew Crichton of Crawfordton is mentioned in an instrument dated 20th February, 1546-47;[102] and on 6th April, 1549, sasine of the fourteen merkland of Crawfordton and Stewarton was given to John, Andrew's son and apparent heir.[103] John's wife was Christina, daughter of William Cunynghame of Craiganis.[104] On 13th April, 1609, John's son, likewise John, was returned as heir of his father and Andrew, his grandfather;[105] and on 28th June, 1614, James Crichton of Crawfordton and his son James were witnesses.[106] On 3rd December, 1628, John was served heir to his father, James.[107] He married Marion, daughter of Stephen Laurie of Maxwelton and Marion Corsane, and relict of William Brown of Ingliston, minister of Glencairn.[108] John Crichton had five daughters, but no son; and on 9th July, 1647, he granted a disposition of the lands of Crawfordton to John, son of William Brown mentioned above, on condition that he should marry one of his daughters.[109]

[98] *Hist. MSS. Comm. XV. Report, App.*, Pt. viii., 35; *Lag Charter Chest*, 16.

[99] *Hist. MSS. Comm. XV. Report, App.*, Pt. viii., 35.

[100] *Ib.*, p. 34.

[101] *R.M.S.*, iii., 3201.

[102] *Charters in H.M. Reg. House, Edinburgh*, 1392.

[103] H. Anderson, *Prot. Bk.* (1541-50), 75.

[104] *Ib.*, 83.

[105] *Inquis. Gen.*, 416, 417. John's daughter Marion married William Grierson of Kirkbride (see an instrument dated 4th and recorded 30th November, 1619, *Dumfries Particular Reg. of Sasines*).

[106] *Lag Charter Chest*, 187.

[107] *Inquis. Gen.*, 1454.

[108] The marriage contract was dated 19th August, 1643. See an instrument dated 9th and recorded 16th September, 1643 (*Dumfries Particular Reg. of Sasines*).

[109] *Laing Charters*, 2377.

On 9th October, 1655, Brown entered into an obligation to marry John Crichton's daughter Agnes, and to assume the Crichton name and arms.[110] Brown was retoured heir to his father on 2nd June, 1656,[111] and on 18th June, 1657, his father-in-law disponed to him and his wife the eight merkland of Crawfordton and the six merkland of Stewarton in liferent, and to his son, John Brown, in fee, on condition that he assumed the name and arms of Crichton.[112] From an instrument dated 4th May, 1652,[113] we learn that of John Crichton's five daughters, Barbara married James Elliot, brother of Gilbert Elliot of Stobs. She had, it seems, been previously married to Robert Maxwell, younger of Portrack.[114] Margaret married, firstly, William Gledstanis, minister of New Abbey, and, secondly, James Moir, minister of Troqueer.[115] Janet married John Elliot; Elizabeth remained unmarried; and and Agnes married, as we have seen, Brown of Ingliston.

We have no information regarding John Cunynghame.

The laird of Bardennoch was Andrew Roreson. In 1472 Alexander Roreson of Bardennoch served on two assizes;[116] and on 16th August, 1507, the King confirmed a charter dated on 13th of that month and year of the 2½ merkland of Barbwye, in the parish of Glencairn, in favour of Andrew Roreson of Bardennoch.[117] Andrew is mentioned in 1509 and 1539;[118] and on 3rd December, 1545, he, Andrew his elder son, and a

[110] *Ib.*, 2474.

[111] *Ib.*, 2487.

[112] *Ib.*, 2499.

[113] Recorded 22nd May, 1683 (*Dumfries Particular Reg. of Sasines*).

[114] See an instrument dated 1st and recorded 8th May, 1652 (*Dumfries Particular Reg. of Sasines*).

[115] *Gen. Reg. of Hornings*, 7th August, 1666; *Gen. Reg. of Inhibitions*, 24th January, 1670.

[116] *Hist. MSS. Comm. XV. Report, App.*, Pt. viii., 35; *Lag Charter Chest*, 16.

[117] *R.M.S.*, ii., 3122.

[118] *R.M.S.*, ii., 3377; iii., 2029. In 1524 Lochinvar was delated of the slaughter of Gilbert Roreson of Bardannoch (*Act. Dom. Conc.*, xxxv., fol. 181).

younger son Gilbert, are referred to.[119] It may be that Elizabeth Roreson, wife of Uchtred Edgar, son and heir apparent of John Edgar of Ingliston, was his daughter.[120]. On 11th June, 1549, Andrew Roreson, junior, is mentioned as tutor of Bardennoch;[121] and we find an instrument of sasine dated 5th July, 1566, of the five merkland of Bardennoch and the £3 3s 4d land of Creichane in favour of Thomas, Andrew's son.[122] Douglas of Drumlanrig having obtained the gift of the ward and marriage of the two daughters of Simon Carruthers of Mouswald, deceased, and having established their title to their father's lands, entered into an agreement in terms of which Thomas Roreson of Bardennoch married the elder daughter, she disponing to Drumlanrig half of the lands and barony of Mouswald. Drumlanrig proposed a similar arrangement for her sister Marion. She, however, declined to accede to the proposal, and rather than submit, threw herself over the tower of Comlongon Castle, "thairthrow wilfullie breking of her awin craig and banis quhairof she deit.[123] In 1581 Thomas Roreson was charged with treason, in that he had committed the crime of coining and circulating false money to the extent of two thousand merks in the year 1573. The following persons were summoned as witnesses:—Cuthbert Cunynghame in Castelfarne, John Setlingtoune of Stanehous, John Kirkchaugh of Wogrie (Bogrie), John Welsch of Colestoun, George Greirsoun of Balmacurane (Dalmacurane), Robert Greirsoun in Inglistoun, Malcolm Fergussone in Cadzeloch (Caitloch), Edward Crechtoun in Gordounestoune, Quintigerne M'Adam in Knokingaroch, and Edward Fergussoune in Over Inglistoun. In the absence of the accused, the

119 H. Anderson, *Prot. Bk.* (1541-50), 35.

120 *Ib.*, 39.

121 *Ib.*, 79.

122 H. Anderson, *Prot. Bk.* (1566-69), 13. On 10th July, 1563, Thomas was served heir to his father, Andrew (*Inquis. Spec., Dumfries*, 6).

123 W. Fraser, *The Annandale Family Book*, Edinburgh, 1894, i., pp. xxxi. ff.; J. J. Reid, "Barony of Mouswald and Barons: A Page of Border History," *Proc. of Soc. of Antiquaries of Scotland* (1888-89), xxiii., pp. 24-79; see *R.M.S.*, iv., 1440.

Court of Parliament found him guilty of treason, and ordered confiscation of his property moveable and immoveable, and his person to underlie the pain of treason and last punishment appointed by the laws of the realm.[124]

Thomas was succeeded by his son Andrew, who is referred to in 1588 and 1607.[125] He married Grissell Grierson, relict of William Kirkhaugh of Chappell.[126]

The laird of Craigdarroch was Thomas Fergusson.[127]

We have no information regarding John Douglas and Thomas and Peter Greyr.

Gilbert Greir in Camling seems to have been a tenant of the laird of Lag.[128]

Of Andrew Crichton, Roger Charteris, John Wrycht, John Crichton of Burngranis, and John Paterson we know nothing.

At Fol. 3 of our Sheriff Court Book there is a notice of an action between the laird of Kirkmichael and "ye Glencorss." This notice is explained by certain entries belonging to the year 1537 in the "Acta Dominorum Concilii,"[129] which refers to an action by John and Archibald Glencors, tenants of the land of Glendenholme against John Glencors of that Ilk and the laird of Kirkmichael in order to ascertain who it was of the two last-mentioned who was legally entitled to the rents.

At Fol. 4 Sir Thomas Grierson is mentioned. He was minister of Penpont, and brother of Gilbert Grierson in Camling.

At Fol. 5 Matthew Gledstanis of Kelwod and Margaret Jardyng, lady of Kelwod, are mentioned. This family is fully dealt with by Mr R. C. Reid in the notes to his recent edition of Edgar's History of Dumfries.

124 *Fol. Acts.*, iii., 204-6; cp. *R.M.S.*, v., 284.

125 *R.M.S.*, vi., 69; 1968.

126 See an instrument of sasine dated and recorded 2nd January 1620 (*Dumfries Particular Reg. of Sasines*), in her favour.

127 See *Records of the Clan and Name of Fergusson, Ferguson, and Fergus*, ed. by James Ferguson and Robert Menzies Fergusson, Edinburgh, 1895, pp. 386-7.

128 See *Lag Charter Chest*, 106, 118-122.

129 ix., fol. 102; xi., fol. 112.

At the same folio the laird of Blakmyr and the laird of Ballagane are mentioned. Fergus Amuligane of Blakmyr and Duncan Hunter of Ballagan served on an inquest on 22nd April, 1505.[130] The latter family is frequently mentioned.

The Provosts of Lincluden.

By R. C. Reid.

This paper forms Part I. of a History of the Collegiate Church of Lincluden, and will be published when that work has been completed.

9th February, 1917.

Chairman—Alexander Turner, V.P.

Characteristics of Alpine Plants.

By Provost S. Arnott, F.H.S.

Some difficulty exists in classifying what may be called Alpine plants. Horticulturally, plants which are of dwarf stature have been grouped under this title, whether natives of mountains or lowlands. I do not intend, however, in these notes to adopt this broad classification, but to deal alone with the subjects which are to be found on the higher ranges of the European Alps. Even this restriction gives rise to some difference of opinion and difficulty, as authorities on the subject disagree regarding the elevation at which the plants may justifiably be classed as Alpine, rather than sub-Alpine. This is of but little consequence, however, as the line of demarcation is not a hard and fast one. Roughly speaking, we may take an altitude of 5000 feet as a fair basis, and discuss the plants above that as revealing the characteristic features of the true Alpine.

[130] *Lag Charter Chest*, 48. See *Hist. MSS. Comm. XV. Report, App.*, Pt. viii., 35.

The subject of the origin of the Alpine flora is not free from doubt. The general theory—that of Charles Darwin, Sir Joseph Hooker, and other scientists—may be concisely given as follows :—The flora of Europe and North America in the Miocene and Pliocene periods were practically similar. The Alpine regions had their own flora, and in the far north there was also what is called the ancient Arctic flora. This was, of course, previous to the Ice Age.

With the advent of the Ice Age these floras had gradually to take up their quarters further and further southward. Therefore the ancient Arctic flora migrated into Canada and the United States and into Europe. In Europe the southward trend of the Miocene flora was checked by the Alps and other mountains. This flora, coming against the glaciated Alps, became almost extinct. A few plants, however, survived. As the glacial area extended, the ancient Alpines were driven into the Lowlands, where they became associated with the ancient Arctic flora. As the glaciation decreased again some of the ancient Arctic, as well as some of the ancient Alpine plants, ascended the mountains and originated the present Alpine flora.

This theory, however, has found able opponents, and some of these urge that Central Asia was the original home of the Alpine plants, and it is known that a plant grown in the Arctic region presents many differences from one from the Alps.

This statement is desirable as an introduction to the subject.

One of the most marked characteristics of Alpine plants is that of their early flowering. The reason for this habit is an obvious one, which, however, the uninitiated are apt to overlook. It is, of course, due to the fact that the plants have to make provision for their reproduction by means of seeds within a very short period. Their revival from their winter's rest, their flowering, the formation and ripening of their seeds, and the dispersal of these must be completed within a brief period of the short summer of these high altitudes. Some of the seeds, indeed, have to find a suitable

resting place before the early winters set in, and may even germinate before that time.

Their pre-winter germination is not common, but to make up for this it is remarkable how rapidly the seeds germinate with the melting of the snow. In cultivation in this country it has frequently been observed what rapid germination takes place after a fall of snow.

It can thus be emphasised that the main factor in the early flowering of these plants is due to the necessity of their reproduction being provided for within a short season.

With some of the bulbous plants, such as certain Colchicums, which flower late, the danger of injury to the future of the race is guarded against by the fact that the seed vessels, like the leaves, are not produced until spring, but are snug beneath the surface, only emerging to ripen when risk of destruction from winter's rudeness has passed away.

We now come to the question of the preservation of the plants from the severe conditions they have to sustain. When they are shrouded in snow during the winter there is little danger. That snowy covering is a screen far more effective than any which man can provide, unless at a cost and by means which cannot be provided in the economy of nature. There are, however, plants which have to exist on bare, wind-swept slopes, where snow cannot lie for long, and where they are exposed to conditions of the utmost hardship. These are protected in the same way as others are screened from injury by the equally trying conditions of periods of drought and brilliant sunshine. In many plants the leaves are covered with hairs or even protected by felt-like coatings, which ward off the extremes of cold and heat in the most effectual way. These protections are of most avail in summer, and many plants which could not, even with these contrivances, withstand the wintry conditions of these wind-swept slopes can be guarded against the trials of summer in their own habitats by these contrivances. Some are densely covered, and others have these protections less patent to the observer. An example of a plant with almost the maximum of such protection is the well-known Edelweiss. Many of the Saxifrages possess almost the minimum of this protec-

tion. It consists in their case of a number of hairs, which retain a "layer," if we may employ that term, of air, which prevents rapid evaporation and undue strain upon the stomata or pores of the leaves. It is exceedingly interesting to observe how, even in cultivation, this feature becomes more developed when leaves are exposed to the sun. Some plants of these Saxifrages will show a small supply of hairs when in the shade, and a greatly increased number in sunny places.

For shelter against the parching heat of strong sunshine it would hardly be expected that the Sempervivums, or Houseleeks, would require any such arrangement, but certain species are fully provided with hairs, in some cases only along the thin leaf-margins, but in others all over the leaves, and in a few species this is still further supplemented by a cob-web-like arrangement of hair stretched across the rosette in the most delightful way.

This brings us to the fleshy or succulent nature of the leaves of many of these plants. This provides a store of moisture, on which the plants can draw during drought, and is very apparent among the Sempervivums and Sedums. It may be mentioned, however, that such arrangements as those remarked upon for protection against drought are not peculiar to Alpines, but are common among plants exposed to excessive drought at certain times.

Another method of protection is that afforded by a floury or mealy substance, which clothes the leaves—generally the lower surface—and frequently the stems and bracts of certain flowers. This serves in some measure as a screen against the strain on the plant caused by the refraction of the sun on the snow about the plants. I am not aware, however, if this question has been as fully considered as one might expect, and I have a measure of doubt as to the reason of this powdery arrangement.

A marked characteristic of the Alpine plants is the scale-like coverings which shield the stomata of certain subjects. Some plants, such as the Alpen Rose—Rhododendron ferrugineum—have a brown, rust-like appearance underneath the leaves. This is composed of a series of scales covering the

stomata or pores, which are on the under surface of the leaves alone, and preventing excessive respiration.

Another point which has been frequently remarked upon is the intense brilliancy of the flowers—a brilliancy which is not so apparent in cultivation—and is doubtless the product of the pure air and undimmed sunshine the plants enjoy in their season. This brilliant colouring has the effect of attracting many insects, which, in their search for honey and pollen, convey the latter from flower to flower or assist in the process of fertilisation in many flowers which are self-fertilised.

Some interesting speculations have been evoked by the question as to which colours were most attractive to the insects, but I must say that the conclusion that red flowers are the most frequented is not borne out by flowers in cultivation.

A pronounced characteristic of Alpines is that of producing a dense, tufted habit of growth, with short stems and spreading roots. By the former habit the plants are less exposed to fierce winds and are less liable to exhaustion. The roots are of a kind which will enable the plants to draw their nourishment from a wide area. Many of them penetrate far into gravel and loose soil; while others, with what are known as tap roots, push far down into the crevices of the rocks and draw their nourishment from sources untouched by drought or heat.

Such are some of the characteristics of these charming plants, the products of trial and adversity. When or how they were originally produced lies beyond mortal ken. It is sufficient, perhaps, for us that they are part of that great plan which is ever revealing fresh facts to its study by mankind. In this, as in so many other branches of learning, we are like children gathering pebbles by the seashore; but we return from our search for knowledge ever more conscious of our ignorance and more and more realising how much there is to learn in Nature's works and ways.

Halldykes and the Herries Family.

By DAVID C. HERRIES.

On high ground a mile or so north-east of Lockerbie stands the plain little whitewashed house of Halldykes, flanked on either side by its stables and byre, with a weather-beaten avenue of beech trees stretching away in front. Now a mere farmhouse, it was once larger, with a wing on each side; on the sill of the window over the porch is cut R.H. MDCCXXII. M.J.—the date of its building and the initials of its then owners, Robert Herries and his wife, Mary Johnstone. A room to the right of the porch is handsomely panelled in oak, and over it is another, also oak panelled, the windows of which command a wide view southward, ranging from Birrenswark Hill on the left to Criffel on the right with Skiddaw in between in the far distance. Halldykes once formed part of a property called Little Hutton, the history of which from 1644 to 1803 it is proposed to relate here, with the help of an inventory of its title deeds made in 1751, the Edinburgh General and Dumfries Particular Registers of Sasines, and other evidence.[1]

According to the inventory of 1751,[2] the Steel family of Brierhill obtained in 1644 from James (Murray), 2nd Earl of Annandale, a charter (following upon a contract of wadset) of the 10 pound land of Little Hutton,[3] "comprehending therein the 9 merk land of Halldykes and Hutton Hills and the 6 merk land of Fulldoo-s," in the parish of Dryfesdale and

[1] All unpublished family papers quoted here—such as the inventory, a rent-roll, etc., etc.—are in the possession of Mr R. S. Herries of St. Julians, Kent, the present writer's brother.

[2] See, too, *R.M.S.*, 1634-1651, No. 1564.

[3] Little Hutton belonged in 1632 to John, 7th Lord Herries, and probably was included in a Crown grant of the 20 pound land of Hutton in Annandale, on his resignation, to Sir Richard Murray in 1633. On Sir Richard's death Hutton passed to certain nieces of his, and on their resignation in 1643 to their cousin, James, 2nd Earl of Annandale, from whom the Steels derived their right to Little Hutton in 1644. (See *R.M.S.*, 1620-1633, No. 2121; 1634-1651, Nos. 441, 1450; *Dumfries Retours*, Nos. 163, 164.)

Stewartry of Annandale. The Earl reserved a right of reversion on payment of 7500 merks, and about the same time granted to the Steels a discharge of a feu duty of £10 10s Scots. On 30th May, 1654, the Steels and a creditor of theirs, Ronald Brown, portioner of Leitfeild, made a disposition of the same property in favour of Mr Robert Herries, minister of Dryfesdale, and Janet Mackison, his spouse, in life rent, and of their son, Robert Herries, in fee, subject to the reversion and the "hazard" of the feu duty above mentioned. Sasine in their favour followed on 24th July, and was registered at Dumfries on 30th August, 1654. The minister[4] and his wife disponed their rights in the property in favour of their son, Robert Herries, on 24th August, 1660.

James, 2nd Earl of Annandale, died in 1658, when his earldom became extinct, while his viscounty of Stormont and his right of reversion over Little Hutton passed to David (Murray), 2nd Lord Balvaird, and on his death to his son, David, 5th Viscount Stormont,[5] with whom in order to termi-

[4] Robert Herries was minister of Dryfesdale from 1616 till his death, which took place at the age of 80 on 10th May, 1662, according to his tombstone, carved with two armorial shields, in Dryfesdale Old Kirkyard. On 8th January, 1642, he was served heir-general to his father, William Herries, burgess of Edinburgh, who died in 1598, appointing in his will (confirmed at Edinburgh, 24th January, 1598/9) overseers for his son Robert and council givers for his wife, Katherine Bankes (for whom see *R.P.C.* vi., p. 521). Among his debtors were Robert Herries of Mabie and his son Richard and others of his own name. His son, the minister, married Janet Mackison at South Leith on 10th September, 1618 (Scott's *Fasti*, I., pt. ii., p. 647). A notarial instrument shows that on 4th November, 1670, she personally at Halldykes put her son Robert into possession of her household goods there, as well as her corn and live stock. Besides Robert, she had an elder son, Mr William Herries of Harthat, or Hartwood, in Annandale, who died in 1658. One of his daughters, Katherine, married John Herries of Mabie, and her brother, Francis Herries of Hartwood, and his son William after him, became possessed of Mabie for a short time by purchase from John Herries's creditors. (For pedigrees of the Herrieses of Hartwood and Halldykes, see *Miscellanea Genealogica et Heraldica*, 4th Series, iv., pp. 272, 301, 378; v., 40, 118, 119.)

[5] This Lord Stormont's second son, James Murray, was created by the Pretender in 1721 Earl of Dunbar, Viscount Drumcairn, and

nate the reversion Robert Herries, son of the minister, entered into a contract of feu on 18th December, 1701. Stormont therein undertook to grant the Little Hutton property to Robert himself in life rent, and to his son, William Herries, and his heirs in fee, without any manner of reversion, redemption, or regress, to be held by them of himself and his successors by payment of a yearly feu duty of £40 Scots (£3 6s 8d in English money), and by giving personal attendance on horseback to himself and his successors within the country of Annandale when called, in suitable order and at their own expense. Further, the property was to be thirled to the mill of Tundergarth, or, in other words, all corn grown on it was to be ground at that mill. A charter of Stormont to the same effect bears the same date, by virtue of which Herries and his son had sasine of the property on 2nd January, which was registered at Edinburgh on 28th February, 1702.

Probably the attendance on horseback was not meant to be called for, though in his younger days Robert Herries might have been a champion worth having, for he was ready to quarrel and handy with sword and pistol. He was imprisoned for a few weeks in 1667 for using both weapons against James Murray, messenger, and his party, who were trying to execute letters of poinding against Adam Newall, "chamberlain to the Earl of Southesque;"[6] and Newall in his turn entered into a bond of caution at Halldykes, the 2nd July, 1674, that "Robert Herries of Halldyckis" would not trouble

Lord *Hadykes* (Ruvigny's *Jacobite Peerage*, p. 44, where a note explains that *Hadykes* is Halldykes, "pronounced Ha'dykes," near Lockerbie). Stormont's fourth son was the famous Earl of Mansfield.

[6] *Scottish Hist. Soc.*, xlviii., pp. 223, 224, 230. Adam Newall, who lived at Hoddom Castle, then belonging to Lord Southesk, died in 1683. His testament, confirmed at Dumfries, 12th March, 1684, shows that his widow, Sarah Herries, was daughter of "Janet Makesoune" (see Footnote 4), and sister-german of this Robert Herries. Both she and her brother, Robert Herries, were accused before the Privy Council by Lord Southesk in December, 1683, of concealing papers that had been in Newall's hands as "factor and chamberlane" to the Southesk estates. (See *R.P.C.*, 3rd Series, viii., pp. 301-2.)

or injure Andrew Murray of Brockelrig, or his family, tenants, or servants. Robert Herries had also in 1674 a quarrel on hand with James Carlyle of Boytath.[7] He married Jane, daughter of William Irving of Cove (son of Jeffrey Irving of Robgill and grandson of Edward Irving of Bonshaw), the marriage contract being dated at Cove the 13th December, 1670.[8]

William Herries, the son infefted with him in the property in 1702, died before the 5th August, 1703, when his brother Robert was served his heir. This Robert had sasine of the property, the 12th July (registered at Edinburgh the 9th August), 1704, by virtue of a precept of *Clare Constat* by Lord Stormont in his favour as brother-german and heir of William, eldest son of the late Robert Herries of Halldykes, dated the 10th May, 1704. His initials, with those of his wife, appear on the present house at Halldykes, as has been related already. His grandson, Robert, the last Herries owner of Halldykes, in some MS. notes about his family describes him, on the authority of his own father, as a "dapper little man, a perfect gentleman, who never stirred without bearing his sword by his side." He continues :—"How he contrived to bring up his large family seems quite wonderful, . . . all his daughters appear to have had a tolerable education, and the handwriting of all his sons was remarkably good, as various papers in my possession show." These notes say that he was living in 1724, when he "charged his estate as provision for each of his younger sons." He died before 21st June, 1728, when Lord Stormont issued a precept of *Clare Constat* for infefting William Herries in the Little Hutton estate, as eldest son and heir of Robert Herries of Halldykes. The consequent sasine did not take place till the 23rd October, 1735, and it was registered at Dumfries on the following 15th December.

William Herries is said to have ruined himself by extravagant devotion to sport. At anyrate, according to the inventory, he made a disposition of the Little Hutton property

[7] *R.P.C.*, 3rd Series, iv., pp. 607, 612, 666.

[8] Colonel J. B. Irving's *Book of the Irvings*, p. 50.

in favour of John Goldie of Craigmuie[9] and others as trustees for his creditors, which was dated the 2nd January and registered in the Sheriff Court Books of Dumfries, the 26th September, 1751. The property was put up to auction at Dumfries the 22nd October, 1751, and it was on this occasion that the inventory of its title deeds, so often referred to, was made and signed by Mr Goldie for the use of the purchaser.

This purchaser, as a " docquete " at the end of the inventory shows, was Robert Herries, the next younger brother of William Herries,[10] the seller. He was born about 1710, and began life as a merchant at Dumfries, being admitted a burgess there the 1st February, 1731. In 1738 he was on the Jury (see Crockett's *Scott Originals,* p. 410) at the trial at

[9] Some time Commissary of Dumfries (see " Goldie-Scot," Burke's *Landed Gentry*, 1914).

[10] William Herries died at Rosebank, a house on the Halldykes property, on 24th September, 1777, and was buried in the Old Kirkyard of Dryfesdale with his first wife, Katherine, daughter of John Henderson of Broadholm, in Annandale (for her family see *Miscellanea Genealogica et Heraldica*, 5th Series, i., p. 173). Their eldest son, Sir Robert Herries, a London banker, knighted in 1774, was M.P. for the Dumfries Burghs from 1780 to 1784, and died in 1815. His second wife, a daughter of the Rev. F. H. Foote, of Charlton Place, near Canterbury, by a sister of Sir Horace Mann, the friend of Horace Walpole, was well known as a " blue-stocking " hostess in London. Sir Robert's next younger brother, Charles Herries, was known to contemporary Londoners as Colonel of the Light Horse Volunteers of London and Westminster, which numbered among its privates a Prime Minister (Spencer Perceval) and other statesmen and distinguished persons. On his death in 1819 the regiment gave Colonel Herries a military funeral in Westminster Abbey, and placed a monument to his memory there. His eldest son, the Right Hon. John Charles Herries, the Tory statesman, died in 1855, and his eldest son, Sir Charles Herries, Chairman of the Inland Revenue Board, in 1883. The Right Hon. J. C. Herries had a brother, General Sir William Herries, who died in 1857, and the present lineal male heir of William Herries and his wife, Katherine Henderson, is Sir William's grandson, William Herbert Herries, eldest son of Herbert Crompton Herries, and brother of the present writer. He has sat in the New Zealand House of Representatives since 1896, and was Minister for Railways and Native Affairs in the Cabinet formed by the Right Hon. F. W. Massey in 1912, which offices he continues to hold in the Coalition Cabinet formed by the same Prime Minister for war purposes in 1915.

Dumfries for infanticide of Isobel Walker, upon whose case, and the devotion of her sister Helen, Scott founded his *Heart of Midlothian*. According to the *Autobiography of* Dr Alexander Carlyle, minister of Inveresk, he did not prosper at Dumfries, and eventually settled at Rotterdam. Here he succeeded well enough to be able to retire from business early in life and buy Halldykes.[11] Some accounts of his have been preserved, which show that he farmed part of the land himself, for an entry of 31st December, 1770, states that £34 5s had been received for "potatoes and milk sold this year, besides maintaining the family and 10 servants." In 1757 he built new stables, and in 1764 a chaise and harness cost £42, and two bay horses £32 11s. Probably he found country life less to his liking than he had expected, for at the end of 1771 he departed for London with his family to begin a second business career as "acting partner" in a bank that his nephew, Sir Robert Herries (see Footnote 10), had just started in St. James's Street. For this post he was "extremely well qualified," according to Sir William Forbes of Pitsligo, another partner in that concern.[12] He died in London at his house in King Street, near the Bank, the 3rd October, 1791, in his 82nd year.[13] He had married in 1747

[11] Sir William Forbes's *Memoirs of a Banking House*, p. 17, where the seller of Halldykes is wrongly called *John*, instead of *William* Herries.

[12] *Ibid.*, p. 30.

[13] *Gentlemen's Magazine*, 1791, July-December, p. 972. In 1747 this Robert Herries matriculated his arms (the old Herries three sable *herissons* on a silver field, with a crescent in the centre for his difference) and crest, and is described in the Lyon Register as "second son of the deceast Robert Herries of Haldykes, who was son to Robert Herries of Haldykes, who was son to Mr Robert Herries, minister of the Gospel at Drysdale, and younger son of the last Lord Herries." To this a note was added in 1824 pointing out that the minister was really son of William Herries, of Edinburgh (see Footnote 4). In 1789 Robert's nephew, William Herries, of Brussels, matriculated his arms with due difference, and is described in the same register as "brother of Sir Robert Herries (see Footnote 10) . . . and third son of William Herries of Halldykes by his lady Katherine, eldest daughter of John Henderson of Broadholme. . . . which last William was parternally descended from the ancient and respectable family of the Lords Herries," etc.

Isabella, daughter of Sir Thomas Kirkpatrick of Closeburn, (3rd) Bart. She died the 17th October, 1777, at the age of 47.

He was succeeded in the possession of Halldykes by his son Robert, who, though born there the 31st October, 1767,[14] never lived at the place in later life. He was for some time the head of the bank in St. James's Street, but retired from business in 1815. He died at his house of Glenlyn, at Lynmouth, North Devon, the 27th October, 1845. He never married, and by selling the Halldykes property in portions from 1801 to 1803 had ended the family connection with that place, though not with Dumfriesshire, for his cousin, Sir Robert Herries (see Footnote 10), had inherited in 1800 a place called Greskin, in the parish of Moffat, from a distant kinsman, Michael Herries of Spottes. On Sir Robert's death Greskin passed to his nephew, the Right Hon. J. C. Herries, who sold it about 1850.

A "rentall" of the Halldykes estate, signed like the inventory above mentioned by Mr Goldie, gives the names of the farms and their tenants in 1751 as follows:—The Mains of Halldykes, Christopher Armstrong; the Byresteads, James Henderson; the Buss, William Muir; the Fulldoors and Rough Park, John Johnston; the Miln Mailing, Thomas Mundal; Catchhall and Parkhouse, John Mundal; Sloda Hill, Andrew and Hendlay Chalmers; and the Upper Mains, John Johnston and Thomas Mathison. The total yearly rental was £120 10s 8d, paid mostly in cash but partly in "kain" fowls and work done for the landlord. The rent of the Byresteads, for instance, was £11 and the teind £1, and to this sum of £12 was added 19s 2d, the value of eight kain fowls, priced at 4d each, and of so many days of carting of peat and turf and leading of corn and hay and so on. On some of the farms this "work money" had been commuted for cash payments, but kain fowls were due from all. These figures suggest that

[14] His father's accounts show that on 1st November, 1767, he paid 2s for an "Express to Closeburn to announce the birth of my son," and £2 2s to the midwife. In October, 1770, he paid £2 2s to "Dr Clapperton for inoculating my son," and £3 3s "and a watch" to "Mr Yorstoun, surgeon, for attending him."

tradition may have done injustice to William Herries, the seller of the place in 1751. In these days no great extravagance would be required to come to grief on a rent-roll of £120, burdened with charges for the support of younger brothers. Mr H. G. Graham, however, in his *Social Life in Scotland*, says that in the first half of the 18th century a laird was considered well off with a rent-roll of £100 or even £80 a year.

The accounts of Robert Herries show that he gave £2700 for the property in 1751. In the next fifty years this price was more than trebled, and the rental more than doubled. A memorandum by the Robert Herries who sold the place in the early 19th century gives the prices he obtained and the rent-roll at that time as follows :—

Farms.	Acreage.	Rent.	Purchasers.	Prices.
Sloda Hill ..	357 2 32	£57	Nov., 1801, William Stewart	£1550
Byresteads ..	93 1 3	40	July, 1802, David Johnstone ..	1100
Rosebank ..	128 3 1	52 10s	March, 1802, Thomas Henderson	2200
Mains ..	147 2 32	80	April, 1803, Thomas Beattie ..	4300
Catchhall ..	57 2 14	35		
	785 acres.	£264 10s		£9150

The number of farms was less than in 1751, so possibly some had been thrown together. Advertisements of sale show that the 785 acres were Scots acres, equivalent to about 1000 English acres. The tenants in 1801, in addition to rent, paid "Land Tax, Bridge, Rogue [a police rate] and Road Money, and School Salary." Both in 1751 and 1801 the landlord had to pay out of his rent the feu duty of £3 6s 8d to the Superior of the lands and £7 towards the minister's stipend. Of this last sum £6 19s 5d was paid in cash and the rest in kind, "4 bolls, 1 firlot, 3 pecks, and 3½ lippies Half Meal."

Half Bear

Old houses are apt to gather legends about them. One such concerning Halldykes, so far as the present writer is aware, appears for the first time in print as a "Border Rhyme" in Tait's *Edinburgh Magazine*, for July, 1845. The story is that at a convivial meeting of local gentry at Lockerbie Herbert Herries of Halldykes grossly insulted and struck his brother Hugh, after a quarrel as to which was the favoured of a certain lady. Herbert on his way home to Halldykes

was waylaid and murdered at Hurkell-burn by Hugh, who, after announcing to another brother, Charles Herries, that he had just made him a laird, disappeared for ever from Annandale. The ghost of Herbert is still supposed to haunt the place of his murder. So much for rhyme, but the prosaic Sasine Registers know of no Herbert or Charles Herries as owners of Halldykes, and only record one succession (except by purchase in 1751) of brother to brother, when Robert was infefted in the lands in succession to William Herries in 1704. As has been stated already, Robert Herries, the last of the name to own the place, wrote down a few notes about the family connection with Halldykes, and these are silent about this tragedy. Though he never lived at Halldykes after his childhood, yet he says that he had heard his father speak of his father and his manner of life there, and in later life he was often in the neighbourhood on visits to his mother's relation, General Kirkpatrick Sharpe of Hoddom Castle. It seems, therefore, incredible that he should not have heard the story if it was current in his time, and still more incredible that if he knew of it he should not think it worth mentioning. Probably the tale was the invention of the anonymous rhymster of the *Edinburgh Magazine*.

A more pleasing legend relates that in 1745 a company of the Highland followers of Prince Charles Edward on their march southward by Lockerbie visited Halldykes, but only found there the lady of the house, Katherine Henderson, the wife of William Herries, who is said to have been on the Hanoverian side. She, by her agreeable manners, so won their goodwill that in compliment to her they forebore from all acts of rapine or violence, only exacting in return a promise that the child she was expecting should, if a boy, be named Charles in honour of their Prince. About this story, too, the notes of Robert Herries are silent, and it can only be said that Mrs Herries's second son, born about this time, certainly was called Charles (see Footnote 10).

Primitive Marriage.

By the Rev. S. DUNLOP.

[This valuable anthropological lecture dealt fully with the classification into which scientists divide the early forms of marriage. The data on which the lecture was based were almost all drawn from savage life, the lecturer following in the main the conclusions of Tylor and other authorities. The Editors regret that, owing to the limitations of space, a full resumé of the lecture cannot be given.]

8th March, 1917.

Chairman—WILLIAM DICKIE, V.P.

Crae Lane and its Vegetation.

By Miss I. WILSON, M.A.

The view towards Crae Lane from New-Galloway Station is across a stretch of uneven rocky moorland. In a V-shaped depression it lies with Duchrae Bank on its right, sloping to meet Banks o' Dee Hill. Centrally, at the mouth of the valley lies a wooded knoll, Holland Isle, beyond which, rising from Woodhall Loch, Crae Hill is seen, higher still Tormollan Hill. Circling Tormollan Hill and emerging from Lochenbreck is the Kenick Burn, which enters Woodhall Loch from the south. Crae Lane, known also as Woodhall Lane and Grenoch Lane, emerges from Woodhall Loch and flows in a northern direction through a valley, where every winding reveals an added beauty, every gap is filled by some satisfying view of distant hill or nearer wooded knoll. In length, as the crow flies, Crae Lane is hardly a mile, its height above sea level being 200 feet.

It will already be understood that "lane" here refers to a waterway. In Galloway it is the name frequently applied to a slow, winding waterway passing through bog or marsh

land, the most famous being the Cooran Lane of the *Raiders*, a waterway entering the Dee near Loch Dee.

In times of flood the Dee, which normally keeps straightly on its way across the mouth of the valley, sends a strong current round Holland Isle joining Crae Lane slantwise, and, both by its somewhat contrary tendency up the valley, and also by stemming back the not inconsiderable volume coming down, causes high floods, when the valley is in great part submerged.

We may divide the lane into three botanical regions—the still watercourse, the alluvial water-meadows, and the tree-covered slopes with coarser soil and whinstone rock. Common reeds and purple loosestrife characterise the watercourse, bent grass the meadows, and coppices of birch, alder, oak, spruce, and pine the slopes.

At the head of the valley is Duchrae Farm, the birthplace of S. R. Crockett. Around this spot he loved to weave his fancies; its floral riches are constantly referred to, justifying a more detailed account. On Duchrae Bank the Levellers, revolutionists against land-enclosure, are said to have made their last armed resistance to authority; while, crossing from Crae to Lochenbreck, Robert Burns was inspired to composed " Scots Wha Ha'e."

The plants, a list of which is now given, have been brought to school by the children and others, in their varying seasons. Further observation of this mile will add greatly to the list, which is meanwhile very incomplete, but sufficient to indicate wealth of flowering plants.

Firstly, growing in the watercourse may be found *ranunculus flammula, r. aquatilis, nuphar luteum, nymphaea alba; potentilla comarum; lythrum salicaria; œnanthe crocata; iris pseudacorus; potamogeton natans; lemna minor; lobelia dortmanna; menyanthes trifoliata; arundo phragmites.*

Secondly, in the water-meadows may be found *ranunculus acris, r. ficaria, thalictrum minus, caltha palustris, trollius europaeus; cardamine amara, c, pratensis, c. hirsuta; viola palustris, v. canina, v. tricolor; polygala vulgaris; lychnis flos cuculi; potentilla tormentilla; parnassia palustris;*

drosera rotundifolia; hydrocotyle vulgare; carum verticillatum; jasione montana; carduus palustris; achillea ptarmica, a. millefolium; gnaphalium uliginosum; senecio aquatica; myosotis palustris; pedicularis palustris; mentha aquatica; pinguicula vulgaris; myrica gale; orchis mascula, o. maculata, o. latifolia; narthecium ossifragum; juncus communis; luzula campestris; eriophorum vaginatum; carex pulicaris, c. caespitosa, c. praecox; c. grostis alba.

Thirdly, in the woods and by the wayside are found *draba verna, capsella bursa pastoris, lepidium smithii; helianthemum vulgare; lychnis diurna; cerastium; stellaria holostea, s. graminea; sagina procumbens; hypericum perforatum, h. pulchrum, h. quadrangulum; alchemilla arvensis, a. vulgaris; geranium robertianum; oxalis acetosella; ilex aquifolium; trifolium pratense, t. repens; lotus corniculatus; lathyrus pratensis; prunus spinosa; fragara vesca; rosa canina; epilobium parviflorum; sanicula europea; meum; viburnum opulus; lonicera periclymenum; galium saxatile, g, verum, g. aparine; asperula odorata; valeriana officinale; arctium lappa; centaurea nigra; heraclium spondylium; carduus arvensis; senecio jacobea; lapsana communis; hypochaeris radicata; hieracium murorum; campanula rotundifolia; erica tetralix; calluna vulgaris; myosotis arvensis; m. versicolor; scrophularia nodosa; veronica officinalis, v. chamaedrys; euphrasia officinalis; rhinanthus crista galli; melampyrum pratense; prunella vulgaris; teucrium scorodonium; ajuga; lysimachia nemorum; primula vulgaris; persicaria aviculare; rumex acetosa, r. acquaticus; rumex obtusifolius; mercurialis perennis; salix caprea, s. viminalis; allium ursinum; luzula sylvatica; scilla nutans; anthoxantum odoratum; dactylis glomerata.*

Authorities : *A List of Flowering Plants of Dumfriesshire and Galloway,* James M'Andrew; *British Flora,* Bentham and Hooker.

The Etymology of Lane.

By the EDITORS.

The term *lane,* signifying a narrow deep rivulet or watercourse, appears to be confined almost entirely to Galloway, where it is of frequent occurrence. Jamieson in his Dictionary mentions that it is also to be found in Lanarkshire. In the district between Loch Dee and Loch Doon the term abounds—the Gala Lane, Cooran Lane, Carrick Lane, Eglin Lane, Carsphairn Lane, Tunskeen Lane, Balloch Lane—and others might be multiplied. In the parish of Mochrum is the village now called Elrig, but before it was endowed with a telegraph station it was always called the Lane of Mochrum, from a lane or narrow brook which, running out of Elrig Loch, runs along behind the houses.

The etymology of the term is obscure. The English *lane,* a narrow way, is the Anglo-Saxon *láne* or *lone,* the latter form being preserved in the Lowland Scots, *loan* and *loaning.* Skeat, who remains the dominant authority on English etymology, pronounced *lane* to be of unknown origin, perhaps allied to the Icelandic *lon,* an inlet, a sea loch, *laena;* a hollow place, a vale. In this he is supported by Jamieson, who does not, however, say from what Icelandic word it is derived. His dictionary, invaluable as a record of phrase, is untrustworthy in etymology, for he did not always distinguish between words derived from each other and those of common descent.

If the term be of Icelandic or Norse origin (and Mr W. G. Collingwood points out that there is an Icelandic word, *leyningr,* a hollow way), it is strange that it should for the most part occur in remote and inland parts where Norse influence was least likely to be felt or leave any permanent impression. In Cumberland, where Norse influence was undoubted, there is no such word as *lane.* A narrow road is a *lowning,* or in the southern part of the district a *loan.*

J. D. Johnston, in his *Place Names of Scotland,* p. 165, mentions a Gaelic word, *leàn,* a swamp; and Mr Collingwood suggests that *lane* as a sluggish stream, if one can risk a

guess without knowing the history of the word, looks rather like the same thing. Mr Bradley, in the *New English Dictionary*, s.v. *Lane*, gives at the end of the article, " 5. Sc. A sluggish stream of water; also the smooth part of a stream " (perhaps a different word)—1825-80, in Jamieson. 1891—*Daily News*, 2nd July—" . . . here a loch and there a lane or sullen deep stream." 1897—Crockett, *Lad's Love*, xxv., 253—" . . . sluggish, peaty lane."

The N.E.D. derives *lane*, a narrow way, from the Old English *lane*, and Sir Herbert Maxwell is of opinion that the word, both in English and Lowland Scots usage, indicates a narrow passage, whether for persons and cattle (in English) or for water (in Scots).

However obscure its etymology, the word in Scots signifies a narrow sluggish burn, flowing as outlet or passage from a loch.

The Lower Nith in its Relation to Flooding and Navigation.

By ROBERT WALLACE.

The rivers flowing into the Western Seas of Britain are shorter than those travelling eastward, yet their proximity to Atlantic trade routes may give them a greater commercial value, notwithstanding their smaller volume.

Of these western rivers the Clyde is the largest in Scotland, and the Nith second. If the English coast be included, only the Mersey and the Severn are of greater volume.

While the Nith is only fourth in size, yet it is of greater age than the Clyde or the Mersey, and probably also of the Severn. Of the oldest rivers born during the Eocene uplift, the Nith is certainly the largest.

A stream that has been flowing uninterruptedly for a prolonged period of time may be expected to have swept its channel clear of all obstructions, making the shape and size of the valley to be in proportion to the volume of the stream. This would remove a prolific cause of flooding, and give a free passage for navigation through the estuary. The Nith

has both the age and the volume necessary to produce a large and deep valley, but unfortunately it is harassed with burdens unexplained and mysterious. Its floods are famous, and its record in this respect is as bad as the long, tortuous streams crawling towards the east coast. In navigation there is no comparison between it and the larger rivers, Clyde or Mersey, while much smaller streams, like the Annan and the Urr, outrival it. Navigation is now only practicable to Kingholm Quay, six miles upstream; and a hurried discharge is imperative in order to escape a fortnight's delay for full tides. Boats entering the county town are only a memory of the last generation.

Dumfries Basin.

This ancient basin of New Red Sandstones stretches from the Solway north to Auldgirth. It is of horse-shoe shape, with steep valley walls on the western side. It embraces the whole central valley of Lower Nithsdale and the desolate valley of Lochar Moss on the east, and that of the Crook's Pow on the west. The Red Sandstones of this basin are intercalated with bands of hard breccia. Gradually the softer sandstones have been removed, leaving the breccia to weather out in the form of prominent ridges, such as the Craigs, Chapelhill, Carruchan, and Goldielea. The intervening hollows are now occupied by the Nith, the Crook's Pow, and the Cargen Pow. The central stream traverses at least three distinct types of valley formation in its course from Auldgirth through the burghs to the Solway.

1. As it traverses the parishes of Kirkmahoe and Holywood it meanders gently through a wide fertile plain of low gradient.

2. At the Castledykes bend, south of Dumfries, both valley and central flood plain are absent. The river is here entrenched—presenting an entirely new aspect.

3. At Glencaple the valley is V-shaped, with steep sides and a flat floor.

Nith of Three Different Ages.

If we assume that the deep gorge at Blackwood is a true

index of the tremendous erosive power of the river in cutting this narrow passage through the hard greywacke rock, then we must admit that the width and depth of the valley will be graded according to the size of the stream and the length of time it has been at work. The hills of Pennyland are over 1000 feet above sea level, while the river bed is 100 feet; this gives a gap 900 feet deep. Assuming that the ancient river has been no larger than the present one, such a vast amount of rock cutting would require an enormous period of time. When the river encountered the soft sandstones of the New Red Basin its valley walls were corroded to a greater degree than the harder rock upstream. Hence at Duncow to Cowhill the valley is two or three miles wide, with a flat bottom and flaring sides. The shape is different from that of the Blackwood gap, but the amount of work done bears the same proportion in both cases to the length of time at work. A cross section at both points gives profiles of a valley of a mature age. Down stream the Nith is augmented by the Cluden and other tributaries; yet at Castledykes it can only show an excavation of the breccia band to the extent of 15 feet. Evidently the river has not had the necessary time to grade its channel; it is a creature of yesterday. The work of gradation is just in its infancy.

The third type is best seen a little south of Glencaple. The hills behind Kenneth Bank are nearly 300 feet high. This gives a gap of about one-third of the Blackwood gorge of 900 feet produced by a stream greatly enlarged by tributaries. The Glencaple gap is evidently deeper than it seems. The valley walls on both sides of the river are steep, and the flood plain of mud which lies in the centre is nearly a mile wide. If the same angle of slope of the valley sides be extended downward below the flood plain until they meet in the centre, another 150 feet of valley presently beneath sea level would give a total valley excavation of 450 feet. It is evident that the Glencaple gap, although of great age, is very much younger than the matured Duncow to Cowhill trough. It is no true index of the age of the Nith, but it suggests a younger life having been engrafted into older surrounding. The valley is a misfit.

Problem of the Lochar Moss.

This valley begins north of Locharbriggs, and widens rapidly as it nears the sea. The Lochar rivulet meanders about in an aimless fashion through a vast wilderness of peat. The valley walls at Bankend are from three to four miles apart, and represent an immense valley excavation out of all proportion to the tiny stream passing through. Clearly this is an exaggerated misfit.

Rivers Lost or Captured.

The whole story of river development in Nithsdale and Galloway is extremely important. The path of the Nith in its earliest stages is clearly chiselled on the hills of to-day. Some tributaries have been beheaded, others captured, not many miles from the burgh two rivers are entirely lost. We are concerned, however, in this short paper with obstacles to stream development that are of recent date. The most practical way to arrive at a definite decision is to find out (1) what were the geographical conditions of this basin previous to the interruption by glaciers during the Ice Age; (2) what has happened to this area since the dispersal of the glaciers.

Oscillations of Sea Level.

All authorities are agreed that during the last two or three ages there have been several elevations and depressions of the land throughout Southern and Western Scotland. J. W. Gregory is of opinion that an elevation of land took place in Pliocene times of 800 to 1000 feet.

This uplift would connect the Outer and Inner Hebrides with the mainland of Scotland. Ireland would be joined to England and Wales, and the tract now covered by the Irish Channel would be a long, broad valley or trough. Probably the Nith and other Galloway streams discharged into the Solway river, which flowed along the plain of the Irish Channel and entered the sea at the south of Ireland. One thing at least is certain, that rivers would cut deeply into the elevated land, and still be considerably above the sea level of that age.

Borings in the Clyde district prove the existence of a

buried river valley 300 feet below sea level. Another bore near Barrow-in-Furness gives a depth of 450 feet before the bed of the old valley is touched. The pre-glacial valley of the Mersey is 160 feet deep. At Bo'ness, on the river Forth, the ancient river channel is now 570 feet below present sea level. After the Pliocene uplift a gradual subsidence of land took place. It was continued into glacial times, and in this district reached its maximum when the shore line stood 100 feet higher than the present sea level. Along the rocky headlands of Galloway the waves cut out a rock platform at an elevation of 100 feet, while in the estuaries a beach was deposited at the same elevation. About this time the glaciation of Southern Scotland was at its greatest. Galloway ice was travelling eastward over the Nithsdale valley. As the ice-fields decreased in size an elevation of land took place, and the shore line receded until it reached the 50 feet contour line. There was sufficient pause at this height to form another estuarine beach. During the formation of this 50 feet beach the glaciers were greatly reduced in size. They were confined to valleys, and their moraine deposits on the outlying plains tend in the same direction as that of the valley from which they emerge. Since that time the elevation of the land has been continuous, with the exception of a slight pause producing another marine terrace at 25 feet.

PRE-GLACIAL NITH.

The uplift in the Pliocene Age would enable the rivers to cut very deeply into the land. The 900 feet gap at Blackwood would give some idea of the size of the valley further down stream. The soft sandstones of Lower Nithsdale would be more easily eroded, and the result would probably be a wide trough, but the amount of erosion would be greater in Caerlaverock than at Blackwood. The pre-glacial Nith valley must have been both large and deep. Bores near the mouth of the Lochar give a depth of 200 feet before rock is touched. The valley walls are at least three miles apart; they dip below the old beach of the Lochar at Bankend at a sharp gradient, and point conclusively to a buried valley of large dimensions. No. 1 bore at the Arrol-Johnston

Works, Heathhall, gives a buried channel 105 feet deep; No. 2 bore, 100 feet. The works are built upon the 50 feet beach, and probably cover the bed of the Pliocene Nith, which was at least 55 feet below present sea level.

Raised Beaches of Kirkmahoe.

The depression of land in early glacial times to the 100 feet level would bring the sea up to Dalswinton, and cause the formation there of an estuarine terrace, which was immediately covered with glacial moraines as the sea retreated. During the formation of the 50 feet beach all preglacial channels were silted up near the shore line. This beach extends from Sandbed and Carzield past Kirkton and Carnsalloch to Heathhall. Not only was the old channel through Kirkmahoe deeply buried, but the Nith glaciers deposited large moraines at Carzield and Carnsalloch, and effectually barred the passage of the river.

The New Nith.

The river had now to find for itself a new path to the sea, and its course was governed wholly by the movement of the glaciers or the arrangement of their deposits. The line of least resistance pointed south, but the glaciers of the Cluden valley coalesced at an angle with those of the Blackwood valley. The junction took place at Dalscone, and between the two sets of ridges the waters of the impounded Nith got through with difficulty. South of the burghs the Galloway ice travelling over the Maxwelltown plain deposited long drums of moraine debris from Corbelly to Castledykes. Again the river squeezed through the breach in the barrier and escaped.

Carnsalloch Floods.

The Dalscone barrier is a glacial drum of sand and gravel. Since the river began its new course it has truncated the ridge on the Holywood side, and cut down 15 to 20 feet. While it was lowering its channel at Dalscone, it was compelled up stream to work in a lateral direction, hence the very large holms of Carnsalloch and Duncow.

They are the results of tremendous floods due to the obstruction of the barrier. Across these plains the river has worked incessantly for thousands of years endeavouring to right the wrong of a former age.

FLOODING OF DUMFRIES.

Although the Nith has been augmented by the Cluden Water, it has not accomplished so much vertical cutting at Castledykes as at Dalscone. Three new features meet us :— (1) A broad band of very hard rock crossing the channel; (2) a sharp elbow turn giving the rock a greater power of resistance; (3) the presence of tides.

The band of breccia is probably a spur descending from the Craigs. It is continued along the western side of the river to the Caul, and protects the Troqueer bank from erosion. This has caused the Nith to impinge upon the Dumfries bank, cutting downwards 30 feet, and forming the flood plains of Dock Park, Whitesands, and Greensands. This sad spectacle of destruction has continued since the days of Neolithic man, and will continue until we wake up to the necessity of assisting the river to adapt the size of its channel to the great volume of flood water stored up in the winter's snow throughout the Southern Uplands.

GLENCAPLE RIVER.

South of the Castledykes the Nith enters into an old valley extending to the Solway. The tributary valley of Crook's Pow enters the trunk valley near Kelton, and widens it considerably in that neighbourhood. The Glencaple valley assumes its true proportion just below the village. Its valley walls at Kenneth Bank and Kirkconnel are very steep, and if extended downward below the present merse they would produce a V-shaped valley extending more than 100 feet beneath sea level. Undoubtedly the Glencaple river was of considerable age when the Pliocene uplift took place. This elevation gave it new life and power to lower its bed in agreement with the original Nith in the Lochar valley. During the 100 feet and 50 feet submergence the river was drowned. At the pause of the 25 feet beach the silting process began.

The first or oldest portion remaining is that of Kirkconnel Moss.

Excavating the Buried Valley.

Ever since the new Nith entered this old small valley with its buried bottom it has been seeking to adjust itself to its environment. From Kingholm onwards the valley is large enough to accommodate its captured river, but its silted floor is a serious obstacle to navigation. The entry of the Cargen Pow, Crook's Pow, and other streams on the western side of the valley has destroyed the balance of power and driven the river Nith towards the eastern bank. In the work of downward erosion it has encountered the hard spurs of the Netherwood and Chapelhill ridge. In several places the river is resting upon a shelf in the eastern valley wall, particularly so at Kingholm Quay, where a continued elevation of land may in a few years hang up the dock beyond the reach of tides. Naturally the situation is at its worst at Kelton Ford, where the valley is at its widest. A comparison of the wide channel at Kelton and the narrower one at Glencaple is very suggestive. Not only must the channel be narrowed and so assisted to scour its own passage, but the entry of the tributaries must be regulated. They meander over a long flood plain of low gradient. They carry in suspension a very large amount of peaty material. When entering the broad river, calmed down by the rising tide, the tributaries are unable to continue their load, and a deposit in the stream takes place.

A Rejuvenated Nith.

The capture of the Nith by the Glencaple river gives us the great practical advantage of a master stream in a valley of young and robust age.

The legacy bequeathed us by the glaciers of the Ice Age is that of an elevated river to Dumfries, which implies a swifter passage from the burgh to the Solway. These are the great assets upon the right use of which depends our success or failure in the treatment of the noble stream. The present obstacles to its free, uninterrupted passage are of an accidental and temporary nature, and it rests upon the genius

of man to assist the river to aggrade her channel without delay.

The ultimate cure is a simple problem of engineering skill, based upon a true conception of the progress of river development and a right interpretation of the history of the past.

The Early History of the Parish of Keir.

By Sir P. HAMILTON-GRIERSON.

This valuable paper has had to be omitted owing to lack of space. It is hoped that it will appear as a chapter in the History of the Grierson Family, which its author has in preparation.

The Lost Stone of Kirkmadrine.

By the Rev. G. PHILIP ROBERTSON.

Seven miles south of Stranraer, on the north-west corner of the Bay of Luce, is the village of Sandhead, and two miles west of it is the old churchyard of Kirkmadryne. In the middle of the churchyard stands a church restored to what it was seven centuries ago. It is not used now for worship, but is the burial place of the Ardwell family.

Abutting on the outside, at the west end, is an arched recess. In this alcove is a collection of sculptured stones found in the district. The most interesting by far are stones with sculpture and inscriptions that are early monuments of Christianity. "Nowhere in Great Britain is there a Christian record so ancient" as the carving on these blocks. These stones are illustrated and described in the *Report of the Ancient Monuments Commission on Wigtownshire,* pp. 154-156.

The largest are two monoliths, about seven feet high, over a foot wide, and three to four inches thick. On the top line of the slightly shorter, more massive block was A ET Ω (Alpha and Omega, the T being ligatured). When the casts were taken by Sir James Simpson in 1861 for the Edinburgh

Antiquarian Museum, the Ω was there and the T. Both are now frayed away. Below is the monogram cross of Constantine. This combination of A et Ω with the monogram is common in early Christian times, but in this form it is found only here in the United Kingdom. The form of the monogram fixes a date. It is said that by the end of the sixth century the combination of A et Ω with the monogram ceases to be found on sculptured monuments in the west of Europe. The monogram in the circle—a Greek cross with the Greek letter " r " ligatured on to the upper limb—the Chi-Rho monogram—underwent changes. The Greek " r " (P) was modified to the Latin R, and by and by dropped, leaving only a cross in the circle and no monogram. This simple cross is not found before 500 A.D. The carving of the four monograms on these stones assigns their date to 450-550. All four have the ligatured " r " in Latin form, R, not Greek P.

Below the circle there are six lines of inscription cut in good Latin capital letters, nine or ten in a line. The lettering has suffered less from the effects of time than have the formula and monogram. The fifty-six letters are distinct enough. The only question here is, was there another at the end of line four? It seems as if a small chip had been knocked off after the inscription was cut. There is a slight indication of at least one other letter in that line. If so, what was it? The letters are, as in ancient MSS, not spaced into words. Up to this part there is no question what are the words. The inscription reads :—*Hic Jacent Sancti et prae cipui sacerdotes ID ES.* T is supplied, making *id est.* But this is said to be unheard of in epigraphy. A more commonly received idea now is, that the word, however it was written, indicated the name of the man buried there, as did the words following. In that case there are three commemorated—Ides, Viventius, Mavorious.

They were *sacerdotes.* That did not then always imply what now is suggested when we translate *sacerdotes* by priest. Writers of the period make it synonymous with *episcopus.* But that could not then have the same connotation as bishop has to us. Kirkmadrine could not have had at that time four

or five bishops, successive or contemporaneous, like the Bishop of Galloway.

They are called *praecipui.* This may be a mark of rank, or indication of character—eminent men in a position in which they were *praecipui;* or it is such a word of praise as was coming to be common on tombs.

The other large stone has a very short inscription. At the top is the monogram in a smaller circle than is on the other stone, without the A et Ω. The monogram is only on the front of this stone, while it is also on the back of the other.

Below, in the middle of the line, is the letter S, followed by ET, then below in a line *Floren,* and in another line *tius.* The letters are cut much more rudely here than in the other. It seems as if the two were meant to be read together, and to mark the last resting place of at least five men.

They were likely inserted in a cairn. The formula, monogram, and inscription on the first stone do not take up three feet, while it is nearly seven feet in height. Very likely the cairn was piled above the grave, and piety set up this monument of devotion.

But the circumstances of their erection are as much unknown as what befell them for a thousand years. Little is known of the church and the place. One infers that the four monograms would add to the sanctity of these stones in the eyes of the contemporaries of Bede and their successors. In the twelfth century church building was regarded by the magnates of Galloway as a great means by which they could obtain grace from God. This led to the erection of a new place of worship at Kirkmadrine. Perchance the reverence called forth by these sacred memorials led the builders to add beauty to strength in the building erected. They brought stone from Cumberland that could, as the native stone could not, be moulded and dressed into arch and pillars.

About that time old districts were sub-divided into parishes, often named after, because put under the protection of, saints. Draichan or Dryne, the patron of this parish, was one of the minor saints, and one wonders if it is owing to his being so little known that this parish is called indif-

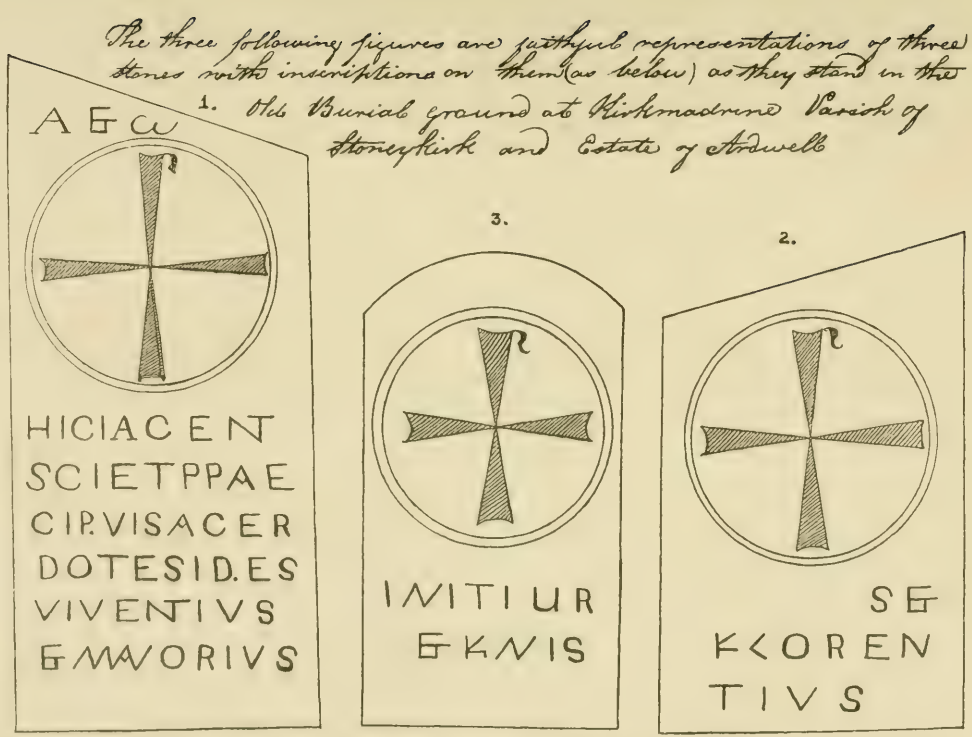


Plate 1.—Mr Todd's Drawings of the Three Kirkmadrine Stones.

Plate 2.—The Missing Kirkmadrine Stone. c.f. Plate 1 No. 3.

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ferently Kirkmadrine and Jaskerton. Jaskerton was the name of the estate in which it stands, the manor house one and a half miles distant. For over a thousand years men gathered to worship God on this spot, hallowed by the dust of these early missionaries of Christ, perchance martyrs, commemorated by these stones.

Worship ceased being held there about the era of the Covenants. There was a church here at the Reformation, and Protestant worship held for some years. It is said that the first incumbent—a scion of a well-known Wigtownshire family—was the only Protestant minister in the Presbytery of Stranraer that had been a Roman Catholic priest.

Though the church was no longer used for worship, men around brought their dead to lie under its shadow. The building crumbled, and the whole place fell into neglect.

The first reference thereafter I know of to these stones is in 1822, and it is by a Mr Todd. He was a schoolmaster in the parish adjoining on the south, Kirkaiden (Maidenkirk). His sympathies and interests were wider than an ordinary pedagogue's, and this led him to make a drawing of these three stones, which was afterwards of great use.

The next known about them locally is that some twenty years later two of them were turned into gate posts. The churchyard is in the middle of fields, and cattle strayed over the graves. This was felt to be unseemly, and it was arranged that the minister lately ordained in the parish—Rev. Robert M'Neil, father of the late Rev. C. M'Neil, once of St. George's United Free Church, Dumfries—should preach at Kirkmadrine, and that a collection should be taken to erect a dyke round the graveyard to keep out the cattle. This was done, and these two stones utilised as gate posts. Was the reverence paid to the ground an act of irreverence to the stones? Let it be forgiven, for men knew not then what we think nor they did.

Soon after this Sir Arthur Mitchell brought their existence to the knowledge of the antiquarian world; but by this time the smaller thick stone had disappeared. In 1872 Sir John Lubbock scheduled the two gate-posts in his Monu-

ments Bill, and in 1889 they were placed in a recess, and taken charge of by H.M. Board of Works.

The missing stone was found by accident in October of last year. Visitors to the district have remarked on the strange pillars for posts to gates seen here and there in the Rhinns. They are like miniature corn stacks, some six feet high and eleven feet in circumference. The gate swings on a batt fastened into a stone in the pillar.

On such a batt the gate of my manse swings. The iron having broken, it was found necessary to take out the former stone, and put in another with a new iron batt. It was found that the stone ran all the diameter of the pillar, and when it was got out and the new put in, there was a huge gap to fill up. The mason naturally thought the best way was to use the former stone for that purpose. It seemed an ordinary stone, so he commenced to break it. Fortunately it was not lying to his mind, and he turned it over. Then, being an intelligent man, he saw to his dismay what he was trying to break. He was greatly relieved when we found it was the blank end that was broken, that the upper inscribed part was only cleft in two, and that the two parts fitted in perfectly, scarcely a particle being awanting.

The stone has been cemented, under the care of the architect of H.M. Board of Works, and will soon be placed alongside the other two larger stones, hardly a whit worse.

This stone is about three feet long, nine inches broad, and nine inches thick. The monogram is the same as on the other two. It is three inches from the top, and eight inches in diameter. One inch lower is the inscription, *Initium et Finis,* in two lines of letters, $1\frac{1}{4}$ to $1\frac{1}{2}$ inch in size. The M of *initium* is either frayed, or, more likely, as in some other cases, intentionally made like an R. The circle and inscription take up about thirteen inches, leaving three inches blank at the top and twenty inches below. The Chi-Rho monogram of which there are four specimens at Kirkmadrine, is found on a boundary (?) stone at Whithorn, and nowhere else in Scotland. Is that owing to the masons brought from France by Ninian to build Whithorn? But that question may never be answered, any more than why the inscription was made

to run over two stones, why a third was added, why there was put in Latin on the third stone a translation of the Greek formula on the first.

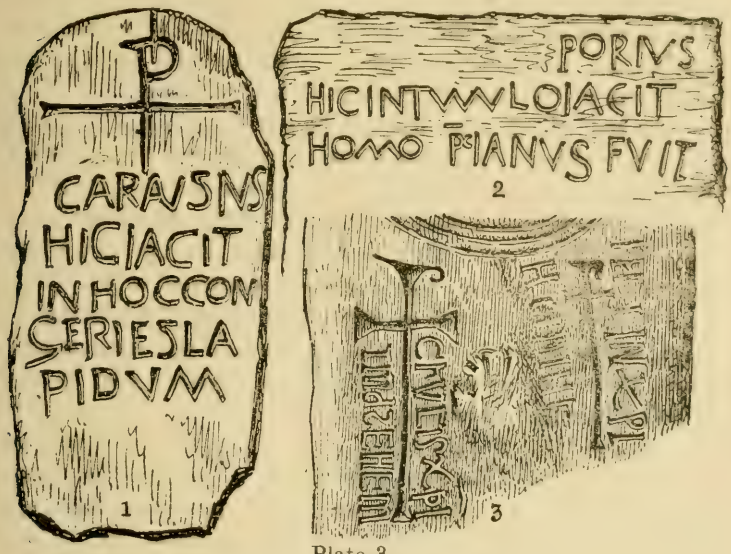


Plate 3.

Note on the Kirkmadrine Stone.

By W. G. COLLINGWOOD.

This stone was described in *Proc. Soc. Ant. Scot.*, ix., p. 569, with an illustration, and mentioned in Romilly Allen's *Early Christian Monuments, Scot.*, p. 495. As the date, 450 to 550, is a good deal later than St. Ninian's actual building, It may be safer to say that the use of the Chi-Rho monogram was brought in from Gaul through the intercourse of the Church in Galloway with its parent Church of St. Martin's. It need not have been imported by the masons of Candida Casa, for they were probably dead by the time the earliest of the Kirkmadrine stones stood on cairns.

Moreover, the Chi-Rho is found in the early British Church in Wales. A very well known example is the Carausius stone at Penmachno (plate 3, fig. 1, from Westwood, *Lapidarium Walliæ*, pl. 79), in which the lettering is 5th or

6th century. That inscription says that Carausius "lies here in this cairn"—which justifies the suggestion that the Kirkmadrine stones stood in cairns.

A different form of Chi-Rho in Wales is at Trawsfynydd, Merioneth (fig. 2, from Westwood, pl. 77), also a burial in a cairn and a similar inscription, with the addition that the man was a Christian—"Pxianus" for "Xpianus."

In the Isle of Man the Chi-Rho is found on a stone at Maughold (Kermode, *Manx Crosses,* pl. x. and lxvi.), which has two monogrammed crosslets (fig. 3) under a circular head. But this Maughold stone has lettering of the 8th or 9th century, though the form of the monogram is like those of Kirkmadrine. It is evident that this form remained in use for a long period, and that it is derived from the "Carausius" form, which in its turn is a simplification of the early monogram, shown on a medal of Theodosius (about 390) as the X and P simply intersecting.

The lettering of this Kirkmadrine stone is later than that of the other Kirkmadrine inscriptions. It seems to have minuscule U and M, and the uncial N, somewhat like our H, common in the 8th century. The ligatured ET is the regular thing in Welsh 5th to 7th or 8th century inscriptions, an old tradition common to all the British Church. Therefore, perhaps, one might suggest the late 7th century as the earliest date of this stone.

Now, anyone can see what a splendid problem this sets. The data are :—

1. St. Ninian died about 428.

2. Viventius and Mavorius, late 5th century (by the lettering).

3. Florentius, 6th century (by the lettering).

4. *Initium et finis,* late 7th century or early 8th.

5. Maughold stone—shewing Whithorn influence, 8th to 9th century; compare also another Maughold stone, apparently of the same period, with Anglian runes and an Anglian name inscribed (Kermode, *Manx Crosses,* pl. x).

6. Anglian Bishopric of Whithorn begins about 730 and ends about 802.

7. The later Whithorn crosses, beginning in the 9th century.

We seem to have here, in spite of the total blank in history, evidence of the continuation of the Church in Galloway, past the time when the Northumbrian Angles settled there and started their own Bishopric, right into the Viking Age; a Church, by its monuments, allied in its earlier history to that in Wales, and still perhaps to be re-discovered by (1) further finds of stones, and possibly early types of cell-chapels; (2) a better understanding of Welsh hagiology. There is work for the D. and G. N. H. and A. Society.

Extracts from Weather and other Nature Notes taken at Jardington during 1916.

By J. RUTHERFORD.

JANUARY.

New-Year's Day was very stormy, with heavy rains, high wind, and heavy flood on the Cluden. The weather throughout the month was very changeable. There was rather high wind on several days. On a number of mornings it was quite like spring, particularly so on the last five days, when the singing of birds was heard on every side. The wind was mostly from the west and south-west. The rainfall (which was well distributed over the month) was above the average, and the highest recorded here in January since 1904.

The most remarkable feature of the month was the high temperature, being about 6 degrees above the mean for 48 years as recorded in Glasgow University Observatory. My record does not extend so far back. It may be interesting to compare the temperature record here with that of Glasgow, and to observe how little difference there is between them :—

	Jardington.	Glasgow.
Daily mean maximum...	49.68 deg.	48.5
Daily mean minimum ...	38.68 deg.	40.4
Daily mean for month	44.18 deg.	44.6

The mean daily temperature for January during the last five years was 37.8 deg.

It is noteworthy that the coldest November on record, viz., 1915, should be followed by the warmest January, and that the mean temperature of the two months was just about normal, whilst the intervening month of December was just normal.

First Snowdrop was hanging its head on the 11th, 8 days earlier than 1915; Hazel came into bloom on the 28th, 23 days earlier than 1915. Mavis first heard on the 27th.

FEBRUARY.

During the first eleven days the weather was mild and very changeable—very similar to that of January, but lower temperature. The fields were quite green and spring-like, and several early flowers were almost ready for bursting into bloom. Cold, changeable, wintry weather followed, and all vegetable growth was suddenly checked. The fields lost their verdure and became blanched and bare. Till the 17th the wind was south and south-west. On the 18th a cold, bitter, barren, north-easterly wind set in, which continued till the end of the month. There were heavy snow and sleet showers on several days. The 16th was a very stormy day, with high wind and heavy sleet and hail showers. We had a trace of snow on several days, but during a good part of the month the distant hills were covered.

Dog Mercury came into bloom on the 1st; Yellow Crocus on the 10th; Dandelion on the 10th; Coltsfoot on the 21st. The daily mean temperature was 6.5 degrees colder than January.

MARCH.

This month came in with a very cold north-east wind, and the distant hills covered with snow. With the exception of the 16th and 17th, cold, barren, wintry weather continued till the end, with the wind principally from the east and north-east. Although there was no intense frost, yet there were only six days without frost on the grass. The daily mean temperature was 5.6 degrees colder than January.

Lesser Periwinkle came into bloom on the 16th; Wood Anemone on the 23rd; Daffodil on the 31st. First heard the crows busy about their nests at Newton on the 4th. First heard the nesting note of the Peewit on the 16th. Corn sowing began on the 22nd.

APRIL.

Came in with an ideal spring morning—a west wind and the birds singing all around. But this was a very disappointing sample of what was to follow. On the morning of the 2nd there was a heavy white frost, and the thermometer on the grass showed 10 degrees. A cold, barren wind, mostly from the west and north-west, prevailed till the 15th, which then changed to an easterly direction, where it continued during the remainder of the month. From the 16th there was no frost, and although the wind was easterly the absence of frost and the rain which fell on the 16th and 17th made conditions more favourable for vegetable growth, and during the last week we were surrounded with beauty in the rich verdure of the fields, the bursting bud, and opening flowers.

First Primrose in bloom on an open bank (where I always note it) on the 11th, 15 days later than 1915; Sweet Violet on the 11th; Flowering Currant on the 13th; Jargonelle Pear on the 14th; Sloe on the 21st; Dog Violet on the 22nd.

First Sandpiper seen on the river on the 4th; first Wasp flying in the open on the 5th; first Swallows on the 24th; Willow Wren on the 27th; Small White Butterfly on the 28th; first heard the Cuckoo on the 27th.

MAY.

The "merry" month came in with a north-east wind, and several degrees colder than the last six days of April; a nice bright morning, plenty of May dew. Heard the birds begin their cheery music about 3.30 in the morning. Although the temperature of the month was fully two degrees below normal, and the distant Moffat hills were covered with snow on the 7th, yet vegetable growth made rapid progress, and by the 20th the fields and trees were very beautiful, and

we could not help being charmed with our natural surrounding and exclaiming, "What a beautiful world in which we have been privileged to spend our probationary course!" and wondering what kind of conditions will prevail in the life which is to come.

Cuckoo Flower came into bloom on the 8th; "Blenheim" Apple on the 10th; Garden Strawberry on the 15th; Wild Hyacinth on the 17th; Eyebright on the 17th; Chestnut on the 19th; Hawthorn on the 27th.

We had an unusual number of Bumble Bees (*Bombus terristris*) and an extraordinary large number of Queen Wasps (*Vespa vulgaris*), which were very annoying, and people were looking forward with some alarm as to what extent the nuisance might reach in the summer and autumn if everyone was fertile and became the parent of a family of wasps. But during June and July they gradually decreased in number, and by the end of July there was hardly a wasp to be seen. What became of them I do not know, but during the summer and autumn there were very few nests about here. This singular occurrence of such a large number of Queen Wasps in the spring, and followed by few nests, has been noted in some previous years. The great number that had hibernated and survived the winter had either been unfertile, or weather conditions had been unfavourable for the development of the eggs and the production of young.

JUNE.

Rain fell every day till the 11th. From the 16th till the 21st the weather was rather cold and unseasonable, and on the night of the 13th there was some frost on the grass. Turnips came away rather slowly after sowing, but were ready for hoeing about the usual time under favourable weather conditions. Corn gave promise of being a good crop. There was a good deal of thunder, which no doubt had a beneficial influence on vegetable growth. The flowers of the month came into bloom about their usual time—Ox-eye Daisy on the 6th: Herb Bennet came into bloom on the 11th; Wild Rose on the 14th; Harebell on the 23rd.

The mean daily temperature was the lowest for June during the last six years, with the exception of 1913.

July.

The first fortnight prolonged the low temperature record of June, with rather wet and changeable weather. From the 8th till the 17th there was fairly good, haymaking weather, when a good deal of ryegrass was secured. From the 17th till the end there was generally bright, dry, and warm weather, very favourable for haymaking. Ryegrass and meadows were good crops. Grass was very plentiful. Corn first seen ragging on the 1st. The wind was mostly from the west, with a few days easterly. The rainfall was heavy. There was no exceedingly warm weather, such as we have often had in previous months of July. Thunder was heard on three days. Got the first dish of ripe Strawberries on the 14th; Honeysuckle first seen in bloom on the 12th; Knapweed on the 26th. Meadow Brown Butterfly first seen on the 21st.

August.

For the greater part this was a month of excellent summer weather, with about normal temperature. By the 14th most of the hay in this immediate locality was in stack. Harvesting began on the 19th, four days later than in 1915. On good land in good condition there were heavy crops. By the end of the month there was a good deal in stack. On the 16th and 18th there was a good deal of thunder; on the 24th and 25th there were heavy thunder rains—2.58 inches fell during those two days, being two-thirds of the total for the month. This caused a considerable flood on the Cluden. In former years, a flood any time between the 1st and the middle of August was looked for, and was called the Lammas flood.

September.

Fine weather continued throughout the month, with temperature a little above normal. There was a low rainfall, a variable wind, and high barometer. By the end the most of the corn on neighbouring farms was in the stackyard.

OCTOBER.

A very dry September was followed by a very wet October. With the exceptions of 1903 and 1909, this was the wettest October during the last 23 years. Rain, less or more, fell on nearly every day, the total being 7.81 inches. There were some high winds, and occasional frost at night. The barometer record of the month was in keeping with the inclement weather experienced. On the evening of the 30th the reading was 28.8 inches. On only eleven days did it rise to 30 inches. There was sunshine at 9 a.m. on 13 days. The daily mean temperature in the shade was 44.53 degrees; this is about 4 degrees below normal. There were several very stormy days, with heavy rain and high wind. There was thunder, with heavy thunder showers, on the 7th. Near the end of the month there were a few fine mild autumn days. We heard of several farms in this district where the harvest was not finished in September, but the weather of October was such that nothing could be done, and the stooks were in a bad state. Potato lifting was also much hindered by the stormy weather and the wet state of the ground. The crop turned out very disappointing. Not only was the crop light, but there was a great deal more disease than we have had for many years. It was noticed that the shaws of some varieties went down very early, before the tubers were matured. The reports from most of the districts throughout the country confirm the opinion that the crop is far below the normal. The last swallow seen was on the 15th, fifteen days later than in 1915. The leaving of the swallows was rather unusual and interesting. Large flocks went away about the beginning of the month; a few were seen daily until the 4th; no more were seen for several days. Then a number returned again on a few evenings; then they were not seen again for several days. A number were again seen on the 15th. The reason for their being absent for several days and again returning I do not know.

NOVEMBER.

From the 1st till the 10th there was some rather stormy weather, with thunder and heavy rain. The direction of the

wind was various. From this till the 22nd there was moderately good November weather, when the greater portion of the potatoes here was got up, but the ground was wet and not very suitable for potato work. A good portion of the turnip crop was secured during the month. This crop was also below the average in bulk on neighbouring farms. From the 22nd till the 29th there was a good deal of wet and stormy weather. The last day was very fine and mild, quite like spring. There was not sufficient drought during the month to enable anything to be done by way of securing the corn which was going to waste in the stooks in many parts of the country.

The temperature of the month was exceptionally high—the daily mean being 44.25 degrees. This was 9.07 degrees above that of November, 1915. There was very little frost—a few degrees were registered in the screen on eight nights. At the end of the month the fields were very green. A good few strawberries were in bloom, and quite a lot of daisies on the lawn.

DECEMBER.

The first three mornings were very fine; the song of the mavis was heard on each morning. From this till the 15th we had good December weather. From this weather of a more wintry type set in, which continued till the end of the month. On the 14th Queensberry and the distant Moffat hills were covered with snow. We had a light covering of snow on the 16th, also on the 18th, and about five inches on the 19th, which was the heaviest fall here during the year. By the 25th the snow was nearly all away. We had a rather high flood on the Cluden on the 29th. The wind till the 23rd was variable, mostly from the north, north-west, or east. From this till the end it was south, south-west, west, and north-west. There was sunshine on only five mornings at nine o'clock.

There was no continued hard frost. The lowest reading in the shade was 21 degrees on the 5th. The daily mean temperature was 4.42 degrees below the average of the last six years.

MONTHLY MEAN TEMPERATURE OF THE FOLLOWING YEARS :—

Year	1911	1912	1913	1914	1915	1916
	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.
January	39·41	36·79	37·49	38·07	37·56	44·18
February	37·81	40·00	40·64	42·68	38·35	37·63
March	41·57	43·67	41·39	41·72	41·49	38·58
April	45·67	48·10	46·33	49·03	46·38	46·03
May	55·38	52·53	52·00	52·27	50·90	50·38
June	58·90	57·69	50·96	56·95	58·18	54·11
July	63·03	61·08	61 11	63·00	57·83	59·87
August	62·38	55·03	60·30	60·93	59·38	61·11
September	54·26	51·00	54·38	55·60	54·28	55·12
October	47·79	46·08	51·33	49·14	47·50	44·53
November	42·26	41·38	43·98	43·06	35·18	44·25
December	40·82	41·13	40·03	38·48	38·15	35·62

Meteorological Observations taken at Jardington, near Dumfries, in 1916.

Lat. 55° 4′ N.; Long. 3° 36′ W.; Elevation, about 50 feet above sea level.

	Self. R. Thermometers. In Screen, 4 Feet above Grass.										Barometer.		Rainfall.		
	Maximum.			Minimum.			Daily Mean Temperature of the Month.	Number of Days at or below 32 deg. in the shade.	Number of Days at or below 32 deg. on the grass.	Lowest Temperature on the Grass.	Highest.	Lowest.	Total Depth.	Greatest Fall in 24 Hours.	Number of Days with ·01 or more recorded.
	Highest in the Month.	Lowest in the Month.	Daily Mean.	Highest in the Month.	Lowest in the Month.	Daily Mean.									
	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Days.	Days.	Deg.	Inches.	Inches.	Inches.	Inches.	
Jan.	53	43	49·69	45	31	38·68	44·18	2	8	28	30·55	29·5	5·09	·69	27
Feb.	51	39	43·51	41	25	31·75	37·63	15	28	22	30·4	28·85	3·97	.47	22
Mar.	57	39	44·52	44	21	32·58	38·58	17	24	18	30·5	29·3	1·32	·29	18
April	69	47	54·7	47	25	37·32	46·03	6	11	22	30·3	29·2	2·52	·42	18
May	79	43	58·13	52	31	42·64	50·38	1	5	31	30·4	29·5	2·99	·60	20
June	79	55	63·43	54	35	44·80	54·11	..	1	32	30·4	29·25	1·81	·29	14
July	81	57	68·22	61	41	51·53	59·87	..	..	39	30·35	29·7	4·22	·90	18
Aug.	85	60	71·03	60	38	51·19	61·11	..	..	41	30·4	29·5	3·81	1·62	14
Sept.	73	54	63·23	57	37	47·	55·12	..	1	32	30·4	29·8	1·76	·71	11
Oct.	63	46	48·80	55	30	40·25	44·53	6	10	26	30·3	28·8	7·81	·99	26
Nov.	57	40	49·96	53	25	38·47	44·25	9	12	22	30·4	28·8	4·10	·87	20
Dec.	52	34	40·93	44	21	40·93	35·62	22	27	17	30·15	29·0	4·44	·91	22
													43·84		230

The Rainfall, 43·84 inches, is 4·42 inches above the average for the last 23 years.

Rainfall Records for the South-Western Counties for the Year 1916.

Compiled by Mr ANDREW WATT, Secretary to the Scottish Meteorological Society.

DUMFRIES	H'ght Ft.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Langholm, Burnfoot	541	7·84	4·29	2·46	3·97	4·61	3·05	5·49	4·85	1·24	9·79	6·97	4·43	58·99
,, Ewes School	445	8·42	4·84	2·50	4·10	4·28	3·11	5·23	5·45	2·40	9·90	6·33	4·58	61·14
,, Craig	450	8·67	5·32	2·12	4·64	4·20	3·28	5·80	4·69	2·06	9·95	6·57	4·23	61·53
,, Drove Road	270	7·85	4·38	3·32	4·16	3·90	2·88	6·05	4·29	2·55	8·93	6·12	4·52	58·95
Canonbie, Byreburnfoot	160	6·13	3·50	2·88	3·12	3·62	2·50	4·75	3·75	1·88	9·12	5·13	4·25	50·63
,, Irvine House	200	6·95	4·28	2·63	3·64	3·09	3·36	5·84	4·44	2·39	8·90	5·06	3·65	54·23
Eskdalemuir Observatory	794	10·28	6·50	2·56	5·32	5·59	3·39	6·14	4·72	2·76	10·47	6·69	5·52	69·94
Moffat, Auchen Castle	500	8·61	5·64	2·00	3·59	5·14	2·44	4·95	4·35	2·48	10·02	5·87	5·25	60·34
,, Craigielands	331	9·68	4·86	2·31	4·36	5·68	2·87	3·47	3·66	2·47	9·86	6·12	5·81	61·15
Beattock, Kinnelhead	820	9·96	5·50	1·46	5·15	5·57	2·66	5·76	5·00	3·52	11·14	6·05	6·02	67·79
Lockerbie, Castle Milk	199	5·34	3·32	1·54	3·53	3·61	2·56	4·68	3·66	2·28	7·60	4·79	4·95	47·86
Lochmaben, Esthwaite	166	5·89	3·95	1·60	2·73	3·80	2·47	5·98	4·31	2·38	7·30	3·94	4·49	48·75
Amisfield, Glenæ	300	5·63	3·48	1·74	2·38	3·68	2·05	4·51	3·95	1·87	7·65	4·02	4·71	45·67
Dalton, Kirkwood	245	5·84	3·35	1·68	3·80	4·46	3·78	5·81	4·32	2·56	8·26	5·08	4·48	53·42
,, Schoolhouse	175	6·34	3·25	1·68	3·20	4·35	2·78	5·04	4·91	2·89	7·48	6·42	4·46	52·80
Ecclefechan, Knockhill	150	5·20	3·05	1·66	2·49	2·97	2·88	4·73	3·19	2·19	7·78	4·87	4·15	45·16
,, Burnfoot	150	5·24	3·16	2·23	3·10	2·96	3·46	5·93	4·25	2·41	7·72	4·71	4·14	49·31
Hoddom Castle	150	5·13	5·20	1·50	2·81	3·39	3·15	4·95	3·42	2·11	7·95	5·55	3·97	46·93
Dalton, Whitecroft	240	5·44	3·09	1·82	2·55	3·86	3·11	4·86	4·08	2·39	8·53	5·55	3·64	48·92
Comlongon Castle	67	4·93	3·65	1·16	2·01	3·57	2·46	3·57	3·34	1·46	6·62	4·53	4·14	41·44
Dumfries, Crichton Inst.	160	3·71	2·80	1·26	2·02	3·35	1·56	4·01	2·99	1·70	6·49	3·58	3·99	37·46
Drumlanrig Castle	191	7·09	5·41	1·74	3·47	3·79	1·68	3·89	5·06	1·31	8·60	5·65	5·93	53·64
Moniaive, Glencrosh	350	7·52	5·24	1·70	3·72	4·38	1·80	4·55	3·12	1·94	9·19	5·66	6·09	54·91
,, Maxwelton House ..	400	7·31	5·45	1·66	3·17	4·87	1·70	4·49	4·74	2·02	8·60	5·33	5·58	54·92
,, Jarbruck	350	8·25	6·15	1·49	4·30	4·86	1·98	5·79	3·84	2·23	9·85	6·25	7·50	62·49

KIRKCUDBRIGHT.	H'ght Ft.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Jardington	70	5·09	3·97	1·32	2·52	2·99	1·81	4·22	3·81	1·76	7·81	4 10	4·44	43·84
Lincluden House	60	5·54	4·04	1·50	2·72	3·63	1·88	4·46	3·53	1·92	8·02	4·37	4·91	46·52
Cargen	85	6·68	4·51	1·76	3·08	4·50	1·95	5·18	4·03	2·48	8·14	5·63	5·01	52·95
Lochrutton	273	6·04	4·08	2·00	3·22	4·30	1·57	4·55	4·18	2·38	8·53	5·47	5·31	51·63
Auchencairn, Torr	50	5·17	5 18	1·55	3·49	4·51	2·44	3·69	4·25	2·30	8·31	5·10	6·40	52·39
Glenlair	250	7·42	5 06	1·83	3·92	4·71	2·24	6·48	4·67	1·79	9·53	6·70	6·90	61·05
Dalbeattie, Little Richorn	54	5·19	4·51	1·48	2·57	3·86	2·16	3·42	5·17	1 62	8·20	5·14	6·12	49·44
,, Kirkennan	30	5·53	5·01	1·80	3·05	4·53	2 49	4·74	5 26	1·96	8·80	5·40	5·91	54·48
Monybuie	580	..	..	·90	3·26	4·07	1·63	4·69	3·62	1·74	7·78	4·19	4·54	..
Kirkcudbright, Balmae	150	3·37	3·69	1·20	3·80	8·47	2·67	2·65	2·64	1·74	7·08	4·10	3·13	44·54
Gatehouse, Cally	120	5·01	4·53	1·52	4·41	5·47	2 40	4 22	3·00	2·61	7·98	5·56	5·44	52 15
Creetown, Cassencary	50	4·12	3.33	1·60	3·19	4·06	1·89	3·70	2·85	1·80	7 06	4·18	4·99	42 77
Palnure, Bargaly	50	5·17	5·01	1·67	4·28	5·92	2·38	5·36	2·97	2·65	8·02	6·02	6·26	55·71
Dalry, Glendarroch	192	7·10	5·72	1·74	4·27	3·94	1·70	5·32	2·65	1·65	10·27	6·50	6·93	57·79
Carsphairn, Shiel	850	12·22	8·00	1·53	7·66	4·67	3·99	5·65	4·16	3·08	12·25	7·95	7·86	79·02
,, Knockgray	641	7·23	5·45	1·19	4·68	4 05	2·82	4·39	3·40	1·85	9·00	5·87	6·01	55·94
Glenhead of Trool	320	9·00	8·00	2·00	7·15	5·80	4·00	6·00	3·50	3·50	10.00	5·90	10·60	75·45
WIGTOWN.														
Loch Ryan Lighthouse	46	3·70	2.90	1·56	3 15	4·60	1·91	2·91	2·41	1·64	5·95	3·95	4·16	38·84
Corsewall ,,	112	5·25	3·80	·74	3·14	4·30	3·64	3·41	2·40	2·28	7·40	6·31	2·25	44·92
Mull of Galloway Lighthouse	327	2·69	1·72	·78	2·09	4·88	2·01	1·86	·74	1·42	6·00	2·00	2·62	28·81
Galloway House	20	3·06	3·30	1·60	2·21	? 2 52	2·01	2·51	2·07	? ·99	6·58	3·28	4·22	?34·35
Whithorn	207	4 25	3·76	1·39	3·63	5·26	2·16	3·42	1·63	2·25	8·59	4 78	4·76	45·88
,, Cutroach	120	3·93	3·29	1·33	3·36	4·58	1·83	2·79	1·89	2·06	7·94	3·98	4·06	41·64
Logan House	80	3 42	3·21	1 21	3·11	5·80	1·98	2·56	2·76	1·67	7·22	3·11	3·24	39·29
Ardwell House	65	3·22	2·99	1 04	3·40	6·28	2·02	2·53	2·61	1·76	6·93	3·19	3·20	39·17
Glenluce, Crews	218	3·73	3·20	1·13	2·81	5·51	2·21	3·06	3·07	1·90	7·82	3·50	4·54	42·48

ABSTRACT OF ACCOUNTS

FOR YEAR ENDING 30th SEPTEMBER, 1916.

I.—On Account of Capital.

CHARGE.

Sum on Bond and Disposition in security		£200	0 0
Sum on Deposit Receipt		36	2 0
		£236	2 0

DISCHARGE.

Nil.

II.—On Account of Revenue.

CHARGE.

Annual Subscriptions		£69	16 6
Donations, and *Transactions* sold		3	10 9
Interest on Loan, less Tax		6	19 9
		£80	7 0

DISCHARGE.

Balance due Treasurer	£2	5	2
Rents, Taxes, and Insurance	13	8	2
Books bought	9	17	0
Stationery and Advertising	4	17	4
Miscellaneous	4	14	9
	£35	2	5
Balance on hand at close of year	45	4	7
		£80	7 0

Proceedings and Transactions

of the

Dumfriesshire and Galloway

Natural History & Antiquarian Society.

SESSION 1917-18.

23rd November, 1917.

Annual Meeting.

Chairman—Mr G. M. Stewart, V.P.

Mr M. H. M'Kerrow, Hon. Treasurer, announced that during the year 1916-1917 the capital of the Society invested stood at £236 2s, but that the bond for £200 was uplifted and £230 invested in 5 per cent. War Loan, at a cost of £218 10s. The difference was made up by taking £18 8s from the deposit account, which now stood at £17 12s. The revenue, including special donations towards publication, amounted to £130 1s 3d. After paying rent, etc., and the cost of the *Transactions,* there was left to carry forward £68 9s 11d. The Chairman in a survey of the Society's activities stated that about 50 members of the Society had given their services to their country, that 15 had died, and 15 resigned. Every effort was being made to keep expenses within income, and with this object, in place of two single volumes, a double volume for 1916-1918 would be issued in a few months, and a special publication fund raised, to which Sir Herbert Maxwell had already given the handsome donation of £10.

Ten new members were then elected, and on the proposal of Mr Davidson, the existing office-bearers were re-elected, with the addition of Rev. S. Dunlop as Hon. Vice-President;

and Mr F. W. Michie, Mrs Matthews, and Miss Gordon as members of Council.

The Chairman also announced that, in recognition of the services of Mrs Shirley in compiling the Index for 1914-1915 and of her work as co-Editor of the *Transactions*, the Council had elected her an Honorary Member. A vote of thanks to the Chairman closed the proceedings.

Comparative Archæology: Its Aims and Methods.

By ROBERT MUNRO, M.A., M.D., LL.D., F.S.A. SCOT.

I.—HISTORICAL INTRODUCTION.

When the reasoning faculties reached the stage of being dominant factors in the progressive culture and civilization of mankind, it is but natural to suppose that, among the many mysterious and inexplicable phenomena in the environment in which they lived, their own position in the scale of organic life in a world teeming with all sorts of animals would have given them an occasional passing thought. From time immemorial tradition and proto-historic documents had impressed on their minds the idea that they occupied a different platform in the scheme of creation from the other animals—man being regarded as the crowning achievement of a long series of creative fiats which brought the present world-drama into existence. Several well marked features in their mental and physical constitutions gave a *prima facie* plausibility to this opinion. Such, for example, as the erect attitude (supposed to be after the image of God); the acquisition of hands which enabled them to manufacture tools and weapons of defence; and, especially, the power of communicating thoughts to their fellow creatures by language, speech, and gesture. So long as it was the current belief that the inhabitants of the modern world were the descendants of a single pair of human beings, specially created for the purpose of founding a divinely protected population, there was really no incentive to inquire into their origin on evolutionary or any other grounds. Both religion and tradition had already

stereotyped the former doctrine as the orthodox history of humanity. During the religious despotism, which obtained in Europe after the downfall of the Roman Empire, no one, or at least very few, seemed to have the courage, or perhaps the intelligence, to point out the manifest objections to this theory as the true explanation of the origin of mankind. If the white, black, and red skinned races were descended from one pair of ancestors it follows that their present physical differences must have been moulded, under natural laws, since the act of creation. On the other hand, it has been shown from an analysis of the ancient sculptures and wall paintings of Egypt, that human racial characters have undergone little or no change during the last 6000 years, as the four principal races who then frequented the Nile valley were as broadly differentiated then as they are now. This slow rate of change in the physical constitution of these races undoubtedly implies a greater antiquity of mankind on earth than that assigned to them by the biblical narrative, as interpreted by Bishop Usher. Similar deductions were founded on the widely divergent elements of the different languages, religious creeds, superstitious and other deep-seated customs. On these grounds it has been argued that the social and physical differences between the various human races and families now existing on the globe had already been developed, under the slow growth of ages, long before the rise of the earliest empires of the old world. But such criticisms, being more academic than practical, were slow in assuming the definiteness of a precise opinion, and hence they were not immediately affected by the rising spirit of inquiry which became manifest in some of the collateral sciences after the darkness of the middle ages began to give way under the influences of more enlightened generations.

Among the chief causes which retarded investigations being made into the more remote field of pre-historic archæology was ignorance of the real nature of the evidential materials which lay concealed within its domain. Looking beyond the unreliable data of proto-historic times the mental vision was so circumscribed by a horizon of impenetrable darkness that successful research in that direction seemed

hopeless. The fragmentary remains then available were either unrecognised as the work of man, or rejected as invalid evidence for the solution of the problem of man's origin and antiquity. Moreover, the knowledge necessary to deal with the waifs and strays of the unwritten records involved new methods of inductive reasoning which took some time to come to maturity. It was not, therefore, till little more than half a century ago that isolated finds in caves and old river gravels, calculated to throw light on the history of man, assumed sufficient coherency to be formulated into a new science under the title of anthropology. As already remarked, want of knowledge of the handicraft work of early races was the principal impediment to pre-historic research. The Greeks and Romans regarded the ordinary polished stone axes, which were occasionally picked up in cultivated fields, as thunderbolts (*ceraunicæ*), and professed to find them wherever lightning was seen to strike the earth. The popular belief, that flint arrow-heads were the missiles of elves and fairies, was long prevalent in the folklore of Britain and other countries. Hence these mysterious objects came to be looked on as charms and talismen, to which supernatural virtues were attributed, such as the power of healing diseases and averting threatened calamities, supposed to eminate from the evil eye and the incantations of witchcraft. Dr Belluci, of Perugia, in his catalogue of Italian amulets has tabulated, under the heading of *Pierres de Foudre,* 20 arrow-heads and 3 polished stone celts, which had been used as charms throughout the country.

The discovery in the ancient gravels of the Somme valley of bones and teeth of the mammoth, rhinoceros, and other extinct animals, associated with almond-shaped flints which M. Boucher de Perthes regarded as the manufactured tools and weapons of the people who lived contemporaneously with these extinct animals, was absolutely ignored by his countrymen for many years. In 1847 he published a report of his discoveries in three volumes, under the title of *Antiquités Celtique et Antediluviennes,* but the work lay unheeded till Dr Hugh Falkoner, F.R.S., visited his collection at Abbeville in 1858. Dr Falkoner returned to London a convert to the

Frenchman's theory, that the flint objects were really the handicraft work of man. This opinion, coming from such an experienced palæontologist, at once attracted the attention of English archæologists, many of whom forthwith visited the scene of these discoveries. It then transpired that as early as 1797 a discovery was made at Holne, in Suffolk, of bones and flint implements precisely analogous to those of the Somme valley. Not only so, but a detailed account of this discovery had been given by Sir John Frere, F.R.S., at the Society of Antiquaries of London. Some of the flint objects, described in the paper as weapons, were presented to the British Museum, where they lay ever since before the eyes of successive generations of learned archæologists as meaningless curiosities. Nor was this a solitary instance of similar discoveries in Britain. About a century earlier than the Holne find (1690), a flint implement and an elephant's tooth had been disinterred from ancient gravels in Gray's Inn Lane, London. But the flint implement was not recognised as the work of man till Sir W. Franks pointed out its identity with the Somme specimens.

The remarkable discoveries made by the Rev. Mr M'Enery in Kent's Cavern, in the early part of last century, were absolutely ignored by scientists of the day. This most conscientious explorer of the cavern asserted that he found flint implements, associated with bones and teeth of extinct animals, below a thick continuous sheet of stalagmite. Papers embodying the results of his investigations were read at a meeting of the British Association in 1847, but, according to Mr Pengally, the inconvenient conclusions arrived at "were given to an apathetic, unbelieving world." Subsequently, however, *en revanche*, the complete exploration of the cavern was carried out under the auspices of that Association (1865-1880) at a cost of £1963. *Veritas nunquam perit.*

Continental discoveries did not fare better. Dr Schmerling, the indefatigable explorer of Belgian caverns, published an account of his discoveries in two volumes, with an atlas of 74 plates, in which he advocated the contemporaneity of man with the extinct animals (1833-34); but, in face of Cuvier's expressed contempt for cavern researches, his convincing

facts and conclusions had no chance of being considered on their merits. It is somewhat amusing to find that Sir Charles Lyell, who paid a visit to Schmerling in 1833, was among those who then regarded his work with some scepticism. Thirty years later, however, Sir Charles made the *amende honorable* to the Belgian savant for not then giving the weight to his opinions that they were entitled to. The following is the concluding sentence of a long apology :—" When these circumstances are taken into account, we need scarcely wonder not only that a passing traveller failed to stop and scrutinise the evidence, but that a quarter of a century should have elapsed before even the neighbouring professors of the University of Liége came forth to vindicate the truthfulness of their indefatigable and clear-sighted countryman."—*Antiquity of Man*, p. 69.

While opinions founded on these anthropological researches were on the verge of passing from the stage of speculation to that of reality, the civilized world was profoundly agitated by the appearance of Charles Darwin's book on the *Origin of Species* (1859), in which he advocated that the successive generations of living organisms (including man), by which the continuity of species was perpetuated on the globe, had been evolved from pre-existing forms by ordinary biological processes, which he called *Natural selection*. Four years later Sir Charles Lyell's book on the antiquity of man appeared. The array of facts and well-reasoned hypotheses set forth in these volumes placed anthropology on a conspicuous pedestal among the Natural sciences. After the cloud of scepticism, with which the earlier discoveries had been received in scientific circles, had passed away, anthropology found a footing at the British Association meetings, at first as a department of the Biological Section; but subsequently (1884) it was found expedient to devote a full section to the deliberation of its attractive and rapidly accumulating evidence on the antiquity of man and human civilization.

The evidential materials which fall to be considered under the science of anthropology naturally arrange themselves into two classes. One consists of the fragmentary remains of the bodies of former races, chiefly portions of skeletons which by

some fortuitous circumstances had hitherto resisted the disintegrating forces of nature. The other comprises a miscellaneous assortment of man's handicraft works in the form of discarded or lost tools, weapons, and ornaments, which, being largely made of stone, shells, and other endurable substances, are more abundantly met with. It is this part of the dual classification that falls within the province of archæology proper. From this standpoint archæology may be said to be the earliest stage of history, so that the latter is a mere strengthening of the methods of the former by the addition of the art of writing to the common stock of unwritten materials already used in recording passing events. History is thus the proximal end of one continuous line of research which has its distal end in that very remote period which deals with the earliest traces of humanity. Not long ago classical scholars were applying the word archæology to the artistic remains of Greece and Rome, the unwritten records being held as too trivial to be discussed under Classical Archæology. But the title, Prehistoric Archæology, correctly limits its scope to the Flotsam and Jetsam which can be picked up on the trail of humanity.

We are indebted to Scandinavian savants for the first serious attempt to unravel the unwritten records of their country. Despairing of being able to get satisfactory information of the early history of their people from the Sagas and other traditionary sources, they began, about the beginning of last century, to subject the archæological materials, so profusely scattered over these northern lands, to the most crucial tests that scientific ingenuity could devise. Impressed by the abundance and beauty of the stone and bronze implements found in the debris of ancient inhabited sites, the abodes of the dead, concealed hoards, and stray surface finds, they adopted the novel method of classifying these relics according to a system which has since become famous as the three ages of Stone, Bronze, and Iron. This method was founded on a statement by Lucretius in his *De natura deorum*. "Anciently," says this writer, "man's armour were his hands, nails, and teeth, together with stones and sticks from

the forest; then came iron and bronze, but first bronze, the use of iron not being known till later."

In 1830 the Danish antiquaries arranged the relics in the celebrated Museum of Northern Antiquities on this basis, and shortly afterwards it was adopted in the Museums of Lund and Stockholm. At the outset the principle was carried to such an extent that the pre-historic relics were classified in a series of consecutive rooms, according to the composition of the material of which they were made. But subsequently this arrangement was discontinued, as fresh discoveries showed that there was a considerable overlapping of relics relegated to these different ages. It took some time for even experienced archæologists to realise the fallacy of adhering rigidly to such a classification, as if the instant the superiority of a bronze axe over one made of stone became apparent the manufacture of the latter ceased there and then. The duration of this overlap would also vary in different countries owing to local circumstances, such as poverty of the people, distance from commercial highways, want of metals, &c., for, it must be remembered, that in the first instance bronze objects were imported from eastern lands. Bronze was in use among the nations bordering the shores of the Eastern Mediterranean probably 1000 years before its appearance in the Baltic regions. However, the sequence suggested by Lucretius, especially as regards cutting tools and weapons, is correct and probably applicable to all European countries; but its chronological value in the fixing of dates fluctuates according to each country's geographical position and attractiveness for early human settlements.

II.—EVIDENCE OF THE UNWRITTEN RECORDS.

When relics of the handicraft work of people who lived in remote ages come to light the primary duty of the antiquary is to give a precise account of them, noting at the same time bones, and other organic substances, that may be associated with them, as well as the physical circumstances in which the objects were found. Should the antiquarian relics readily take their place alongside of analogous remains discovered in the district and already preserved and systematically arranged in

a local or in the National Museum, good and well, as the local antiquary's function may then be said to come to a legitimate end. But if no standard of comparison can be found for the chronological arrangement of his treasures further proceedings of a more drastic character become necessary, which may entail special knowledge beyond the capacity of any single individual to supply. Henceforth the inquiry comes under the control of a number of experts in different departments of science. Human bones are submitted to a professional anatomist who has paid some attention to fossil remains of man. Bones and teeth of other animals, horns, shells, seeds, and other organic remains go to appropriate specialists. The site has also to be examined by the geologist, especially if the debris has assumed a stratigraphical arrangement, as the precise position of a fossil object may determine the date of the site, as well as that of its occupation by man.

The finding of a skeleton of an extinct animal having a stone implement embedded in its skull would be as valid evidence that man was contemporary with and hunted these extinct animals, as if the fact had been recorded by an eye-witness in a written document.

Again, the exploration of a great mound in France whose history was long lost in the mists of post ages has disclosed a central burial, consisting of the body of a warrior, arrayed in the full panoply of a splendid armour and laid on his war chariot, with the horses in their place and harnessed, as if ready for battle. Every manufactured object discovered in that mound reveals by its form, structure, and decoration an unwritten story of bye-gone days, the *tout ensemble* of which conveys to the skilled antiquary a fair account of the culture and cilivization of the period in which this warrior lived.

Worked objects found in surface soil and water-worn gravels may disclose a confused mixture of relics of different ages, especially the latter, owing to the frequent shifting of deposits by storms and floods. Relics found in such circumstances are, for chronological purposes, unreliable, because they may have been previously more than once shifted and redeposited.

In regions abounding in sandhills, where extensive dis-

locations of the sand go on during high winds, we may find in certain hollows a mixed assortment of relics belonging to all ages. This anomaly is easily explained by supposing that a sand-hill formerly covered the site, and that it was then frequented by hunters and other persons, who left their improvised fireplaces, cooking utensils, remains of feasts, and stray objects behind them. By and bye the lighter materials of the sand-hill were blown away in clouds, while the heavier objects gradually sunk lower and lower, till ultimately they reached the surface of the original land before the intrusion of the sand into the district.

But there is another aspect in which novel and unclassified relics have to be treated, in order to gain all the information that the ingenuity of science can elicit from their special characteristics. For this purpose we have to institute a comparison between them and analogous relics found elsewhere, and preserved in various accessible museums at home and abroad. During this roaming inquiry we enter on the special domain of comparative achæology, the prosecution of which often requires the expenditure of more time and money than may be at the disposal of local antiquaries. The result of investigations conducted on these lines has shown that in many localities antiquarian objects, though serving the same purpose in social life, disclose some differences as regards execution, technique, and style of art so constant and persistent that experts are enabled to classify them as peculiar to certain geographical areas. The same remarks apply to a large class of outdoor monuments whose structural details, whether their material be stone, metal, earth, or wood, reveal certain data indicative of the social life and culture of their builders. Many illustrations of such antiquarian remains will occur to the well-informed archæologist, without extending his purview beyond European lands, such as the various types of primitive stone monuments, military camps and forts, lake-dwellings, *terremare,* etc., many of which occupy portions of several of our modern kingdoms. Indeed, most antiquities are more or less differentiated by local prejudices, customs, and other moulding influences, so that experts are able to outline the respective areas of their distribution. The smaller

relics are also relegated to well-defined land areas, although sometimes characteristic specimens are found as stray objects outside the ascertained limits of their original home. For instance, a few fragments of Samian ware have been found in some of the brochs and souteraines of Scotland. The superficial extent of the areas to which certain relics are restricted depends on their utilitarian attractiveness and the length of time that intervened before they were superseded by a superior invention. Hence we have to consider the life history of relics in point of time as well as of geographical distribution. Improvements due to structural alterations in objects are well illustrated by the variety of types of axes, and their manner of hafting. Also, by the successive modifications which the fibula has undergone from time to time in the hands of different races. Starting from the simple bone pin, this useful article of the toilet has passed through the safety-pin stage to that of the well-known Roman fibula, from which it diverged by different routes into distant lands, where it became transformed into the handsome brooches known as Celtic, Saxon, and Scandinavian.

III.—Comparative Methods Illustrated.

I now proceed to give a few practical illustrations by way of showing the value of comparative archæology in elucidating the legacies which our pre-historic forefathers have bequeathed to us in the form of ruined habitations, the abodes of the dead, military works, and that large assortment of their handicraft productions which several generations of ardent antiquaries have stored in many splendid museums all over the world.

Before dealing with the smaller relics, I wish to make a few remarks on those outdoor monuments, merely to prove that in some localities they have acquired more or less different characteristics, retaining, however, a sufficient amount of their common features to show that they are works emanating from the same original sources.

Megalithic Monuments.—The raising of commemorative memorials of such endurable material as stone is not a monopoly of any age or people. While the isolated standing

stone has been used to commemorate various events, such as the crowning of a king, or to mark the site of a battle, grave, or boundary, the use of alignments is still a matter of conjecture. The dolmens, chambered cairns, and orthostatic stone circles, are now believed to be exclusively associated with memorials of the dead. These monuments are distributed in sporadic groups along the shores of the Baltic, throughout the British Isles, France, the Iberian peninsula, and the littoral border of the Mediterranean; but none are found in Central Europe east of Saxony. This irregularity in their geographical distribution has given rise to the theory that they were erected by a wandering race called "the people of the Dolmens," but of the whence or whether of these peripatetic people we have no knowledge.

In support of the theory that the dolmens were used as altars for the sacrifice of human beings by the Druids, the so-called priests of the Celts, there is no evidence. That the smoothest and flattest surfaces of the cap-stones are always facing the interior of the chamber and that cup-marks or other markings, when present, are invariably on their under side, may be accepted as evidence against the sacrificial hypothesis. Another debatable point is, whether the free standing dolmens were formerly covered up with earth or stones? Although many show no trace of having been thus covered up, there are archæologists who maintain that this was the original condition of all of them. This opinion derives some support from the fact that, throughout the whole area of their distribution, many are still to be seen in all stages of denudation.

NURAGHI.—The nuraghe in its simplest form consisted of a circular tower, about 30 feet in diameter at its base, but tapering upwards so as to assume the form of a truncated cone. It was built of roughly-hewn stones, without any cement, but sometimes clay was used in its inner interstices. The main entrance was placed to the south, and measured five or six feet in height, and only two feet in width. On the right of the entrance was a small guard-chamber, and on the left the opening to a winding stair, which led to the top or to an upper chamber, if the tower had a second or third storey.

Fronting the main entrance there was another doorway leading to a central chamber, 15 feet in diameter, which had two or three niches in the surrounding solid wall. The roof of the central chamber, as well as the roofs of all the smaller chambers and stair spaces, was formed on the principle of the beehive dome. Many of these towers, especially the more recently constructed, had around them a complicated mass of outworks, all constructed on the same general principle as the main building.

Remains of some 6000 of these unique structures have been fairly distributed over the whole island of Sardinia, except on its north-east corner, where they are rarely met with. They were judiciously situated at the approaches to fertile tracts of land, near springs, and in the vicinity of river fords; but always within signalling distances of each other. The relics found on their ruins are of a domestic character, such as household pottery, oil jars, etc. Arrow heads made of obsidian—a substance found *in situ* only in one place in the island—are found scattered over the country. A consensus of authoritative opinion now regards the nuraghi as fortified habitations, and not temples or tombs, as formerly conjectured. In their near vicinity some giant graves of a peculiar type have been explored, and are supposed to be the family burial places of the inhabitants of the nuraghi. These tombs are constructed in the form of elongated *alleés couvertes*, and have in front of the entrance a semi-circular double-lined stone wall, reminding one of the Horned chambers of Caithness and others in the midland counties of England. Fergusson (*Rude Stone Monuments*) described the nuraghi as absolutely peculiar to the island of Sardinia, and could find nothing like them, except the Talyots of the Balearic Islands, to which they have some structural resemblance.

BROCHS.—In Scotland we have a class of dry stone built monuments known as Brochs, or Pictish Towers, which in structure, function, and restricted distribution, have so many points in common with the nuraghi that both must be held as derivatives from the same architectural source. They are found distributed over a well-defined geographical portion of North Britain. Before they fell into ruins, some 400 might

be seen conspicuously dotting the more fertile straths and shorelands of the five northern counties, and the islands of Orkney, Shetland, and some of the Hebrides. Outside this area only a few sites have hitherto been recognised, viz., two in Forfarshire, and one in each of the counties of Perth, Stirling, Midlothian, and Berwick. Their structural features are so uniformly alike that it has been maintained that they were all built at the same time from one plan. The most perfect of these structures now extant is the Broch of Mousa, which is thus briefly described in *Prehistoric Scotland*, p. 390.

"It is built of dry-stone masonry, 50 feet in diameter and 45 feet high. At some distance it looks like a truncated cone, but closer inspection shows it to be a circular wall, 15 feet thick, and enclosing an open court, 20 feet in diameter. The outside wall-face slants a little inwards from base to top, but the inner is nearly perpendicular. An entrance passage, 5 feet 3 inches high and 2 feet 11 inches wide, with jambs and lintels of flagstones, forming a kind of tunnel right through the wall, is the only access to the court. Four door-like openings may be seen on the wall facing the court near the ground level, and about equidistant from each other. Three of these openings lead into oval-shaped beehive chambers, constructed in the solid wall, and having their major axes in the direction of the curve of the wall. The other opens into a small recess from which a spiral stair made of undressed flagstones ascends to the top. On mounting the stair for 10 or 11 feet we find that the surrounding wall, which up to this point is solid, with the exception of the beehive chambers already referred to, now becomes split into two walls, leaving a vacancy, about three feet in breadth, between them. At successive intervals upwards this inter-mural space is bridged over with flagstones, thus dividing it into a series of galleries running round the entire building. The lower galleries are from 5 to 6 feet high, but as we ascend they diminish in height. The stair continues its spiral course to the top, intersecting these galleries, and thus gives access to them all. They are lighted from the interior by shallow openings or windows, which look into the court. No access to any part of this curious structure can be got, except by the passage on

the ground floor, about the middle of which there is evidence to show that it had been protected by a stone door barred from within. In other brochs there is usually a guard-chamber on one or both sides of the entrance passage, constructed in the solid wall, after the manner of the beehive chambers."

The chief points of difference in these structures are (1) the central area of the broch was an open court: that of the nuraghe was a central chamber with a beehive roof. (2) The spiral stair in the former led to the top of the building, and in intersecting the galleries gave access to them: that in the latter also led to the top, as well as to a second chamber, provided there was a second storey in the tower. All the chambers in both buildings had been roofed on the beehive principle—a feature which alone shows more than a mere incidental connection. Beehive chambers, when constructed as huts in the open, are necessarily limited on architectural principles to small buildings only a few feet in diameter; but when surrounded by an accumulation of stones or earth they are capable of attaining considerable dimensions. That known as the Treasury of Atreus, at Mycenae, measured 48 feet in diameter and 48 feet in height. The invention of the beehive principle of roofing and arching dates back to Neolithic times; but on the spread of Christianity into Western Europe the beehive hut was found to be so well adapted to the simple wants of the early Christians that it was utilised for monastic cells. The most perfect example of the primitive Christian cashel now to be seen is on the island of Skellig Michel, on the south-west coast of Ireland, which contains a church, an oratory, and several beehive huts—some of the latter being still entire.

Similar remarks as to the resemblances and differences between the different classes of megalithic monuments could be greatly extended did space limits permit. Glancing at them as a whole, we see that while the British Isles are the home of the orthostatic Stone Circles, France claims that distinction for the dolmens, the number of which is estimated at 4000, distributed over 78 departments, and of this number there are no less than 618 in Brittany. The larger chambered cairns and tumuli had entrance passages, generally constructed

of flagstone set on edge, characteristic specimens of which have been described at Uley (Gloucester), Stoney Littleton (Somerset), Park Cwn (Gower Peninsula), Achnacree (Argyll), Maeshowe (Orkney), New Grange (Ireland), etc., etc. But between dolmens, cairns, tumuli, barrows, etc., there is sometimes no clear distinction—so much do they overlap in constructive details.

VITRIFIED FORTS.—Among the forts, camps, huts, and other inhabited sites, I must restrict my remarks to vitrified forts, so called because their surrounding stone walls are partly cemented by a vitreous slag, caused by the external application of heat, which liquified the fragments of trap-rock in their structure—thus forming an excellent substitute for mortar. Hill-forts, with or without vitrifaction, were constructed for defensive purposes, the wall following the contour of the summit, which it enclosed. The chief problem at issue is, therefore, to account for the *raison d'être* of the vitrifaction, which, to a greater or less extent, is, or rather was, to be seen on the surrounding walls of some fifty stone-built forts scattered throughout the northern and south-western districts of Scotland. I have satisfied myself, from a practical examination of the more important examples in Scotland, that the vitrification was effected by the external application of fire after the wall had been constructed. The wall was composed of small stones, such as could be gathered around the site, and the sole object of firing it was to consolidate the loose stones into a uniform mass. All trap-rocks are readily fused under a moderate heat without a flux, so that, with the addition of an alkali such as could be supplied by wood ashes or dried seaweeds, most of the stones could be converted into the pudding-stone appearance of the walls of vitrified forts. It is also noteworthy that vitrified walls are scarcely half as thick as those great stone walls with well-built double facings, such as may be seen in the forts of Burghead, Forgandenny, and Abernethy; so that, without some cementing element, the small stones could not be of permanent value as a defensive barrier, as they would soon fall asunder.

Outside the Scottish area the distribution of vitrified forts is somewhat remarkable. Four are stated, on the authority

of Dr Petrie, to be in the county of Londonderry, and one in the county of Cavan, Ireland. A few specimens have also been notified in Brittany, Normandy, Saxony, Bohemia, Thuringian Forest, and the Rhine district.

Wooden Traps.—Of the smaller and more obscure relics of forgotten industries there is, perhaps, no more remarkable group than those curious wooden machines—the so-called "Otter or Beaver traps"—which I first brought under the notice of the Society of Antiquaries of Scotland as early as 1891. Subsequently I gave full particulars of all that was then known on the subject in *Prehistoric Problems*, chap. vi.

Shortly after my attention was directed to these traps I collected notes of nine or ten of them, all of which had been dug out of peat-bogs at different times and in widely distant localities. Since then many more specimens have come to light throughout Western Europe. The conjectural functions assigned to them are fanciful to an unusual degree. Two or three found in North Germany were described as Otter-or Fish-Traps. A specimen turned up by a peat-cutter in North Wales was regarded by a high authority as a musical instrument. One from Ireland was held to be a fish-trap, a pump, a cheese press, and a machine for moulding peats. In Italy three newly discovered specimens were described as models of pre-historic boats. Carl Deschmann, Curator of Laibach Museum, labelled the two in his keeping as *Biber-fälle*, because, in the lake-dwelling, near to which they were found, there was a profusion of beaver bones, but none of the otter. Other writers regarded these objects as traps for catching wild ducks. In Ireland, which has now yielded 11 specimens, no remains of the beaver have been found in its post-glacial deposits, so that the beaver-trap theory cannot apply to the Irish machines. At the present time (1917) the recorded number of these traps amounts to 41, and their geographical distribution embraces Carniola, Lombardy, Germany (several localities), Denmark, Wales, and Ireland (three localities).

These machines are so alike in their structural details that they must have been constructed on a uniform plan. Briefly, this consisted of a prepared block of

wood, two to three feet in length, and perforated in the middle by an elongated aperture (Figs. 1 and 2). Into this aperture a valve, movable on projecting pivots at one side, was adjusted, so that when the aperture was open the valve stood at right angles to the surface of the machine. Over the valve an elastic rod stretched the whole length of the body, and so arranged as to have a to and fro movement at each end. When the valve was open the rod was bent upwards, and to keep it in this position a bit of stick was inserted to which the bait

Fig 1.—Wooden Trap (Ireland), Univalvular.

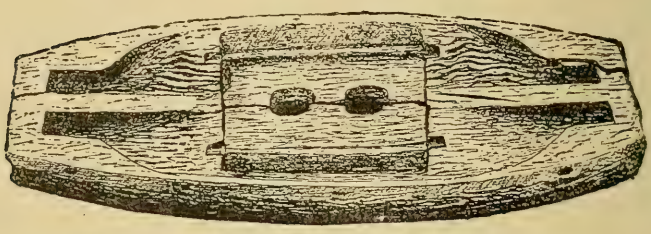
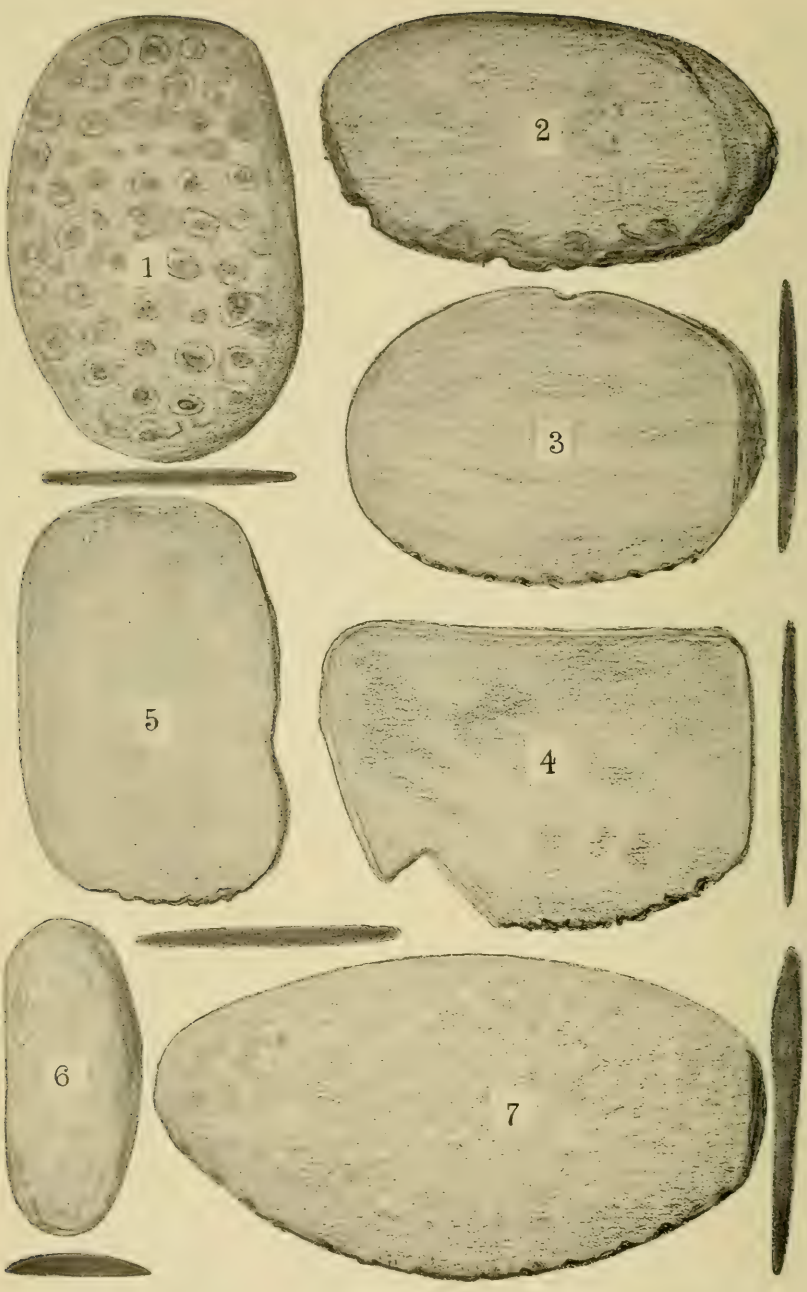


Fig. 2.—Wooden Trap (Laibach), Bivalvular.

was attached. When an animal pulled the bait the bit stick gave way, and the valve closed with a bang, caused by the pressure of the elastic rod, and thus caught the otter, beaver, or duck by the neck. Looking at the *modus operandi* of these ingenious contrivances, I find that they are divisible into two categories, according as the aperture is fitted with one (Fig. 1) or two valves (Fig. 2), the latter being simply a reduplication of the parts of the former. It is somewhat significant to find that all the traps hitherto discovered within the British Isles, eleven in number, were univalvular, while on the continent only one, now preserved in the Museum of Stettin, belonged to this category.



Shetland Knives—All one-third actual size. No. 2 from Modesty; 3 and 4 from the hoard of Esheness; the rest from various localities.

Picts' Knives.—In 1905 I presented to the National Museum on behalf of their owner, R. C. Haldane, Esq. of Lochend, seven specimens of the so-called "Picts' Knives," or scrapers, peculiar to Shetland; and later on I wrote a monograph on the Shetland knives from the standpoint of comparative archæology, of which the present notice is a brief abstract (*Proceed. S.A. Scot.*, vol. xl., p. 151).

These seven knives were found at Esheness, Northmavine, while making a road in the year 1900, at a depth of nine inches in gravelly soil, from which a superincumbent growth of peat to a depth of about four feet had been previously removed. The hoard contained 11 knives, but some were broken, and they were packed closely together with the edges uppermost. Mr Haldane secured seven, and the remaining four fell into the hands of Mr J. M. Goudie, Lerwick, who, a few years later, also presented them to the National Museum.

A mere glance at these relics shows that they possess certain qualities which place them in a special category among ancient stone implements. They are large thin blades made of volcanic rock, known as *rock-porphyry*, irregularly oval or subquadrangular in form, and highly polished on both surfaces, with the margin of each ground to what may be called a cutting edge. Porphyritic rocks are abundantly met with in Shetland, and it would appear that all the implements in the Escheness hoard had been manufactured from the same quarry. Mr B. N. Peach, LL.D., F.R.S., informs me that this kind of rock, on long exposure to atmospheric agencies, breaks up into thin laminæ, like slaty materials, so that in reality nature performs the first and most difficult stage in the manufacture of these knives—a fact which probably accounts for their restriction to Shetland. Their position under a depth of four feet of peat, together with a whitish layer of patina which covers them all over, gives them, *prima facie*, a claim to considerable antiquity. Though no two specimens are precisely alike, there is a general, indeed striking, resemblance between them all; and only in one instance does the ratio between their longer and shorter diameters go beyond six to four inches—the exception measuring six by three inches.

Two of the Esheness group are figured in Plate I., Nos. 3 and 4.

In summarising the details of researches I made as to how far the characters of the Esheness knives corresponded with other recorded Shetland knives, the following was the result. Ten were hoards, each containing 4 to 16 knives, of which 25 were in the National Museum, viz., Esheness 7, Uyea 4, Modesty 14. The total number then known was about 100, of which 52 were in the National Museum, 41 in the private collections of Messrs Cursiter and Goudie, and 8 in the museums of London and Copenhagen.

The discovery of the remarkable find at Modesty, which is of special importance from the standpoint of chronology, was made known through Mr George Kinghorn, who writes as follows :—

"While spending my holidays in Shetland, and residing at the house of Mr Laurence Laurenson at Modesty, about four miles north of Bridge of Walls post office, I was shown three stone axes and three large, oval, and polished stone knives found by his boys in a grassy knoll in front of his house. The knoll is about 20 yards long and 10 yards broad. On the east and west it slopes gently, and on the north abruptly, the ground being broken where the axes were found.

The strata are composed of—

(1) Grass, turf, and sandy peat, about 8 inches.

(2) Yellow peat ashes, about 5 or 6 inches.

(3) Decomposed charred wood, about 4 or 5 inches.

(4) Subsoil, red gravel and rock.

The axes were found in the charred wood layer. About 80 or 90 years ago, previous to his house being built, a bank of peat, about 4 feet thick, had been removed from the site of the house and the knoll, and this may account for the shallow depth at which the relics were found." (See *Proc. S.A. Scot.*, vol. xxix., p. 49.)

On making further search in the knoll, three vessels or urns of steatic clay, some more stone implements, and a pair of saddle quern-stones were found. Fragments of the so-called urns show that the pottery was about half-an-inch thick, and made of very coarse materials mixed with small stones

and what looks like stalks of withered grass. The entire relics found in the knoll were 9 polished stone axes, 14 oval knives of differently coloured porphyrites, two masses of clay, apparently kneaded by hand, and fragments of charred faggots of wood, from 1 to 1½ inches in diameter.

With regard to the Modesty site and its relics there are a few points that claim special attention.

(1) The urns would seem to pre-suppose burial, but not necessarily, as they might have been used as vessels for domestic purposes. Hence, I suggest that the knoll was originally the site of a wooden habitation which had been destroyed by fire, thus accounting for the amount of peat ashes and the embers of the fallen roof, which consisted of rafters supporting a covering of turf.

(2) All the knives in the group, though nowhere thicker than half-an-inch, have the appearance of being coarser than their analogues elsewhere. They have also the peculiarity in some cases of having a thicker edge on one side, forming a back from which the blade gets thinner to a cutting edge—a fact which brings them under the category of semi-lunar tools. Moreover, the cutting edges have the further peculiarity of being retouched by chipping on one side (Plate I., No. 2), with the exception of one, which is chipped on both sides, like some of the flint knives of the Neolithic period.

(3) As to the antiquity of the Modesty knives, the evident conclusion to be derived from the association of so many with axes of Neolithic types is that they date back to the Stone Age, whatever the chronological horizon of that period may be in these northern latitudes.

(4) The removal of the superincumbent peat from the surface of the knoll suggests that the habitation came to an end before the locality had been over-run with peat.

Concluding Remarks.—The purpose for which these implements were originally intended is still a matter of conjecture. It is clear from their slender make and liability to breakage that they could only have been used for dividing soft material, such as skinning animals, etc. The practice common in Scandinavia during pre-historic times, of depositing implements, weapons, and ornaments in lakes, bogs, and fields, as a

religious offering to the Gods, may suggest that some of the Shetland finds were of this nature; and this idea is strengthened by the careful manner in which the specimens in some of the buried hoards were arranged.

As to their age, we have already seen that some of them were associated at Modesty with implements of the Stone Age, which belonged to the period when a stunted arborescent vegetation obtained in Shetland. Another important factor in this problem is the relation of the knives to the culture remains found in brochs, whose chronological range extends for nearly 1000 years, beginning about the time of the final departure of the Romans from Britain. Notwithstanding the fact that Shetland contained close on a hundred brochs, it is regrettable that none have been sufficiently excavated to yield a typical collection of relics. But although none of the Shetland knives have hitherto been found among the debris of brochs, it does not follow that the inhabitants of the latter were not acquainted with these unique implements. The spade alone can decide this question; but until this test is enforced by practical research there is presumptive evidence to show that the Shetland knives belong to the period which immediately preceded that of the Brochs.

STONE BALLS.—Among the more mysterious relics of bygone days peculiar to Scotland must be reckoned those spherical-shaped objects, generally known as Ornamented Stone Balls. It appears that previous to 1851 these objects were so little known that only one specimen was in the Scottish National Museum of Antiquities; but at the present time their number is not far short of 200, three-fourths of which, including casts, are in the Museum, the rest being in other museums or in private collections. All the specimens hitherto known have been found within the Scottish area, with the exception of one said to have been found at Ballymena, Ireland.

Previous to 1874, when Dr John Alexander Smith contributed to the Society of Antiquaries of Scotland his exhaustive monograph on the subject (*Proc.*, vol. xi), both Sir Daniel Wilson (*Prehistoric Annals*, 2nd ed.), and Sir John Evans (*Ancient Stone Implements*) had taken notice of these

balls, so far as they were then known. According to the former authority, the circumstances in which they occur left no room to doubt that they belong to the pre-historic period, "and were held in esteem by the primitive races of Britain." He states that two were shown to him in 1850, "as part of the contents of a cist recently opened in the course of farming operations on the estate of Cochno, Dumbartonshire, one of which was made of highly polished granite, a species of rock unknown in that district." He also refers to another highly polished ball of flint, found within a stone coffin along with a human skeleton, in a large cairn on the Moor of Glenquicken, Kirkcudbrightshire. The arm of the skeleton had been broken by a stone axe, of which a fragment still remained in the bone.

On the other hand, Sir John Evans, after discussing the various uses assigned to the balls, comes to the conclusion that it was "more probable that they were intended for use in the chase or war, when attached to a thong, which the recesses between the circles seem well adapted to receive." Their chronological range he thus defines:—"Whatever the purpose of these British balls of stone, they seem to belong to a recent period as compared with that to which many other stone antiquities may be assigned."

Dr Smith classifies the stone balls into three varieties—first, those covered over all their surface with small round projections; second, those with circular discs, either plain or ornamental, which project from their surface; and third, those of a corresponding size with their surface more or less carefully polished.

After careful analysis of all the balls then available, 45 in number, as regards their provenance, ornamentation, and distribution by counties, he allocated them as follows:—4 to the first class; 35 to the second; and 6 to the third.

Dr Smith displays much ingenuity in support of "the opinion that, instead of belonging to Stone or Bronze Ages, or any such indefinite or ancient period, it was much more likely these curious stone balls might belong to the ancient, though comparatively historic, periods of the sculptured

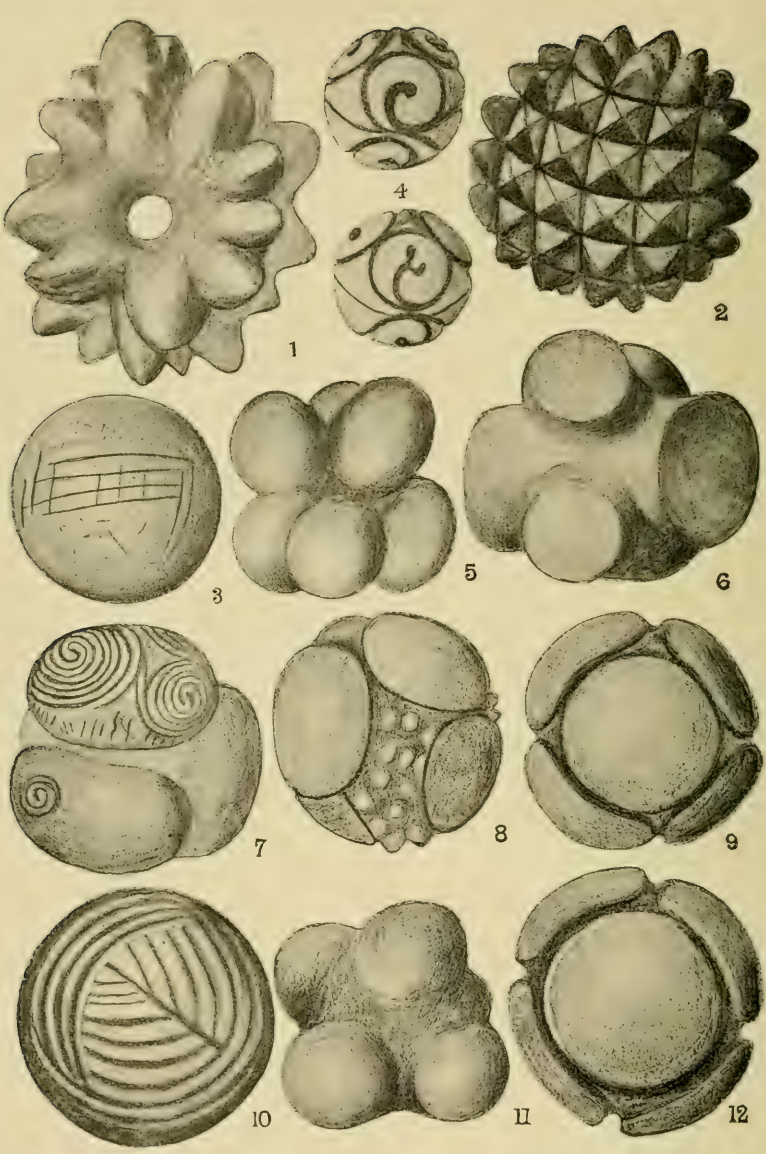
stones, those silver chains and brooches, and Cufic and Anglo-Saxon coins."

As to their use, he publishes a portion of the Bayeaux tapestry showing maces, carried by the Anglo-Saxons at the battle of Hastings, which had heads corresponding to some of the Scottish stone balls, from which he draws the following conclusion :—" These stone balls, in all their varieties, are therefore in all probability actually the stone heads of maces, which each man probably made and ornamented according to his own taste, and afterwards fastened to a stout and short cylindrical handle of wood, and had thus a most efficient weapon for defence and offence."

If Dr Smith's inference holds good, is it not strange that not a single specimen of such weapons has hitherto been found, either in the vicinity of Hastings or anywhere south of the Scottish border?

In the year 1907, *i.e.*, 33 years after Dr Smith's monograph appeared, I became interested in these balls, in consequence of having on two occasions to present to the National Museum a specimen on behalf of Mr Andrew Urquhart, headmaster of Rosehall Public School, Sutherlandshire. The first was picked up by Mr Urquhart at a funeral at Achness from the contents of the newly-opened grave (Plate II., No. 11). The second was found on a cultivated field on the farm of Contullich, Ross-shire. Both these balls have six raised discs, the only difference between them being that the discs on the sepulchral specimen are more rounded than those on the other.

On looking over the records of 73 balls noticed in the *Proceedings of the Society* (including purchases, donations, and exhibitions), and three described in the *Reliquary* (N.S., vol. iii., pp. 45 and 47), all subsequent to the publication of Dr Smith's monograph, and classifying them by counties, after his method, and then adding the two together, the following was the result, which therefore approximately represents their number and geographical distribution up to the year 1907 :—Aberdeen, 56; Fife, 8; Perth and Moray, 6 each; Caithness, 5; Forfar, Banff, Lanark, Inverness, and Kincardine, 3 each; Orkney, Argyll, Ross, Dumfries, Sutherland,



Scottish Stone Balls—All one-half actual size. Nos. 1, 2, and 3 Skaill Bay; 4 (bronze), Lanarkshire; 5, Sutherlandshire; 6. Nairn; 7 Moray; 8, Aberdeenshire; 9, Dumfriesshire; 10, Orkney, 11, from a grave at Achness, Sutherlandshire; 12, Fort of Dunadd, Argyllshire.

and Wigtown, 2 each; Islay, Midlothian, Nairn, and Ireland, 1 each. Again, on tabulating them according to the number of projecting facets or discs, the following was the result:—58 with 6 discs, 18 with 4, 7 with 7, 5 with 12, 5 with 8, 4 with 5, 1 with 3, 2 with 15, 1 with 12, 1 with a kind of foliage, and 10 unclassified. One from Lanark is made of bronze and ornamented with a late Celtic pattern. The back and front are shown on Plate II., No. 4.

Recently the very improbable hypothesis that the Scottish stone balls were "either trade weights, or at anyrate made in accordance with a trade-weight standard, the avoirdupois pound," has been advanced by Mr Wilfrid Airy, B.A. (*Proceedings of Institute of Civil Engineers,* 1912). Mr Airy got 81 of these balls weighed, and, according to his statement, they appear to fall into four groups of $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, and 1 lb.; but by far the largest number belong to the 1 lb. group. Following up this clue, another ingenious writer suggests "that they were used as poisers on weighing beams;" and in support of this theory he advances "thirteen specific good reasons" (*Proc., S.A. Scot.,* vol. xlviii.). As the earliest weights known consisted of grains of wheat and barley, it would be interesting to know how, and when, these were superseded by stone-balls.

During August, 1913, Mr W. Balfour Stewart, F.S.A. Scot., and Professor Boyd Dawkins made excavations in the underground house at Skaill Bay, Orkney, the result of which is recorded (along with notes on the animal remains by Prof. Boyd Dawkins) in the *Proceedings of the Society of Antiquaries of Scotland,* vol. xlviii. Among the relics discovered was a polished ball of basaltic rock (Plate II., No. 3), measuring $2\frac{3}{8}$ inches in diameter, and ornamented with an incised geometrical ornament of crossed lines, differing in this respect from the previously recorded ball from this dwelling, which was carved into small symmetrical knobs (Plate II., No. 2). The so-called second ball, found during the first excavations of this dwelling, was a real mace-head (Plate II., No. 1), somewhat oval and flattened in shape, with projecting knobs and perforated for a handle. I see no reason for including it in the category of the ornamented stone balls. In

1907 I thus described this object :—" In the same dwelling there was also an oval stone with angular knobs, but it was perforated for a handle, thus reminding one of the well-known bronze maceheads so frequently found in this and other European countries, and which are regarded as products of a period later than that of the Bronze Age, as they have been occasionally found associated with Roman and even mediæval remains."

According to Professor Dawkins, the Scottish balls " are probably the heads of life-preservers, or of maces, attached to a more or less flexible handle with thongs, or with a covering of leather, cut so as to show the stone inside." He claims that the Skaill dwelling " was frequented after the introduction of Christianity into the Orkneys by the missionaries of St. Columba in the last quarter of the sixth century."

Thus, the opinions of every writer who has hitherto attempted to explain the use and purpose of these Scottish balls are sufficiently divergent to harbour more than a doubt that the problem has not yet been satisfactorily solved. In my opinion, there are just two lines of research which promise to throw any light on the subject. First, their geographical distribution; and second, the evidence to be derived from the circumstances in which they were found, especially when associated with other works of man.

(1) Their geographical distribution seems to me to have an ethnological significance that cannot be ignored, as it coincides in a striking degree with the little we know of the Scottish area occupied by the Picts or Caledonians—a topic which might be more fully and profitably discussed here did space permit.

(2) With regard to the second line of research, let me remind you that hundreds of isolated relics, made of stone or metal, have been found in or on the surface, without a history; but yet they fall to be correctly classified from the evidence of a few which had been associated with objects whose chronological range had already been fixed. I have, therefore, jotted in tabular form the few instances I can find on record, which furnish any clue to the solution of the mystery in which they

are now enshrouded. At anyrate, it forms a more rational working basis than mere guesswork.

List of Stone Balls found in Association with other Human Works.

One (6 discs), found in Cairn Robin, Kincardineshire.

One (7 discs), found in a tumulus on the farm of Budfield, in the parish of Leochel-Cushnie, Aberdeenshire.

One (6 discs) (Plate II., No. 8), found near Lochnagar distillery, Ballater, Aberdeenshire, "on the top of Craigbeg, where three short stone cists were also discovered. The stone ball was found about a foot from one of the cists. Each of the cists was surrounded by a circle of stones weighing 5 to 15 cwts., the diameter of the circle was about 15 feet: these might probably be the retaining stones of a cairn which had formerly covered the stone cists."

One (6 discs) "was discovered at Buckhall, Glen Muick, Aberdeenshire, by labourers employed in making a new road, embedded in black mould, about three feet under the surface. This mould was contained in a scooped-out hollow in the rock, from 6 to 7 feet in length by 3 feet in width, having much the appearance of a grave."

One (4 discs), with Bronze Age ornamentation, was found when digging a drain in the parish of Towie, Aberdeenshire. The ornamentation on the Towie stone is somewhat similar to that on Plate II., No. 7, but the incised spirals on the former are more artistic and elaborate.

One (6 discs), found near the Roman road in Dumfriesshire (Plate II., No. 9).

Two from the Skaill Bay underground dwelling (already referred to).

One (6 discs), found in the contents of a modern grave in the burying graveyard at Achness (already noticed). (Plate II., No. 11.)

Three from graves at Ardkeiling, Elginshire, two with 8 and one with 12 projecting knobs (already referred to).

One (6 discs) in a cairn at Old Deer, Aberdeenshire.

One (6 discs), found near a stone circle in the parish of Urquhart, Morayshire.

One (6 discs), found in a field at Muckle Geddes, near a half-demolished tumulus, Nairnshire (Plate II., No. 6).

One (4 discs), found in a cairn at East Braikie, Forfarshire.

One (6 discs), found in trenching at Kilpheadar, Sutherlandshire, near some faint remains of a chapel (Plate II., No. 5).

One (6 discs), found when cutting peats in the Moss of Cree, Wigtownshire, "among the gravel at the bottom of the moss."

One (6 discs), found in a peat moss on the hill of Benicheillt, in the parish of Latheron, Caithness (*Proc., S.A. Scot.*, vol. xv., p. 156).

One (8 discs), found in digging close to the church tower of St. Vigeans, Forfarshire (*Ibid.*, vol. xvi., p. 176).

A greenish stone ball of serpentine, associated with an iron spear-head, was found in structures underneath the ruins of St. Tredwell's Chapel, Papa Westray, Orkney (*Ibid.*, vol. xvii., p. 137).

One (4 discs), found on the top of Ben Tharsom, Ardross, Ross-shire (*Ibid.*, vol. xxxviii., p. 470).

One (6 discs), found on the rock close to the inside of the wall of Dunadd Fort, Argyllshire, on its south side, and about 12 inches beneath the surface (Plate II., No. 12). In this fort was a small circular disc of greenish slate "having the word *nomine* incised across the centre in letters somewhat resembling Irish minuscules." Also a large assortment of other relics, which may be dated as belonging to the sixth century. (*Ibid.*, vol. xxxix., p. 311.)

A stone ball broken nearly in half, with thirteen complete round knobs remaining, was found at the Bridge of Earn, at a depth of 9 feet (*Ibid.*, vol. xlv., p. 315).*

Of the remaining balls most are without a history, being incidentally found in the beds of rivers, peat mosses, cultivated fields, etc. The specimen from the clay and gravel beneath the Moss of Cree, in Galloway, suggests a considerable antiquity, as this locality has yielded the remains of a great forest, several heads of the Urus, deer horns of great size, canoes, stone and bronze celts, and a so-called Roman battle-axe (*Proc. Soc. Ant. Scot.*, vol. v., pp. 20-29). Some of the ornamented balls, and nearly all the smooth polished specimens, as shown by the tabulated list, were associated with pre-historic burials; while a few were, unequivocally, within the precincts of some early Christian churches. The contents of the Skaill underground dwelling, as Professor Boyd Dawkins has shown, bring the chronological range of the balls down to early Christian times—a fact which is also suggested by the relics associated with the specimen found in the fort of Dunadd. For these reasons I am inclined to believe that the Scottish stone balls were used as a badge of distinction in the performance of judicial and religious ceremonies, some-

* The "finds" in the above list to which no reference is given are all described in Dr Smith's paper to the Scottish Antiquaries (*Proc.*, vol. xi., pp. 29-62).

what analogous to the function assigned to the *baton de commandement* of the late Palæolithic period and the crozier of the subsequent Christian age—a survivalism which can be readily paralleled by other Pagan rites, which still linger in the ecclesiastical customs of to-day.

I have purposely dwelt at some length on the function of these stone balls in Scottish culture, because the discussion so forcibly illustrates the principles of comparative archæology that further examples are unnecessary. There are many other archæological topics that could be utilised for the same purpose. Indeed, all antiquarian relics should be subjected to the same treatment before we can be sure that we are in possession of the full role they have played in the history of civilisation. Comparative archæology may, therefore, be defined as the ultimate phase of the inductive and analytical methods by which the dilettantism of earlier antiquaries has been converted into the science of pre-historic archæology—a science now so well equipped to prosecute its special sphere of research on truly scientific lines.

Some Observations on the occurrence of Culex Pipiens in 1917.

By Rev. James Aiken, M.A., F.R.S.A.

Culex pipiens is generally recognised as the type of the genus Culex and the family Culicinae. In the tenth edition of *Systema Naturae*, p. 602, Linnæus thus describes it :—

" 224 Culex. Os aculus sitaceis intra vaginam flexilem. (Mouth with bristly stings inside a flexible vagina or sheath.) pipiens 1. C. cinerus, abdomine cumulis fuscis octo."

He appears to have intended this name to cover the common sort of mosquitoes, whose habitat he gives as Europe, in Lapland especially numerous, furnishing in some places food for chickens, and refers to as also occurring in America and the Indies, but he excludes the type in which the female has long palpi, which in the same work he names *bifurcatus*, of which Europe is also the habitat.

In modern times Linnæus' *pipiens* is recognised as the

Northern European type of the common house mosquito, which seems to have established races slightly differing one from another over a world-wide range. Linnæus' second species, *bifurcatus*, is now identified with the genus Anopheles, and is the type of the malaria-carrying insects which have been grouped under this name.

Both species are known to occur in the United Kingdom, and the prevalence of ague in the Fens and some other parts of the kingdom at one time has recently been ascribed to the agency of Anopheles. The general improvement of drainage in the last half century has practically done away with their breeding places, or, at least, reduced them to such an extent that they could no longer function in this way, and malarial ague has disappeared.

Both species may, however, still be found, and my attention was attracted specially during the summer months of 1916 to the prevalence everywhere I went of the *pipiens* mosquito. Its hibernating habit was recorded in 1900 from Shrewsbury, where in the month of January it was observed resting in cellars and other sheltered nooks, found on the wing in March, observed biting in April, and swarming outdoors from June till October.

It is probably the fertilised female only which survives through the winter, and at the first opening of ponds and water-holes lays her eggs in places where they may develop and successive generations rapidly follow, by which the multiplication of the species is secured. The eggs are laid in the form of a raft, some 80 to 100 eggs in a boat-shaped mass are extruded and float on the surface. The larvæ break their way from the eggs and escape into the water, in which they move freely about, diving for food and again coming to the surface for air, which is breathed through the air syphon which projects almost at right angles from the precaudal segment, on the dorsal side. This stage lasts seven days, or under disadvantageous conditions a few days longer. Pupation then takes place, and in a few days the adult mosquito emerges, and after a short rest to dry the wings, sails off in search of blood or amours according to sex, for it is the female alone which seeks a meal of blood and so makes herself a pest to

humanity. The male is of a gentler disposition, and if he feeds at all, it appears that he affects only the nectar from ripe fruits or similar ambrosial dainties.

My personal observations of and experiments with many different species confirms the generally accepted fact, though observations of males biting and sucking blood have been recorded. Such observations lack confirmation. Certain species, it may be noted, amongst which is a British Guiana species of Aedeomyia, have not been observed to bite at all. This applies to both sexes. I have, however, found this species on the curtains in my bedroom at times, and suspected that in the darkness she may possibly be more adventurous than in the light. Examination of the stomach, however, has never shewn any blood contents.

There is, however, no doubt about the blood lust of our British species.

So far as I have been able to ascertain, no authentic record of the identification of mosquitoes in Dumfries and Galloway exists prior to my publication of their occurrence at Springholm in the present year. There appears, however, to have been a current opinion that at times the annoyance experienced by labourers in the harvest fields was due to this insect, and this opinion may perhaps be well founded.

My attention was first drawn to their presence in Springholm by seeing one on the wing near an outhouse of the hotel in which I was staying for a few weeks in August and September.

The first specimen, taken by a sweep of the hand, was in a somewhat crushed condition, but was clearly a mosquito of Culex type. I had fortunately some glass bottomed boxes in my kit, and later with these I caught specimens in good condition, which I identified as Culex *pipiens*. This identification was afterwards confirmed by Professor R. Newstead, F.R.S., and Mr C. J. Gahey, of the British Museum. I immediately began a search for breeding places, and came upon a tub of wash in which sheep manure had been collected. In the thick fluid superincumbent were a number of pupæ, vigorous and lively, but, so far as I could find, no larvæ. From the pupæ

I bred out several adults, and sent a male and female to the Dumfries Museum.

My article in the *Dumfries and Galloway Standard* elicited some remarks from the Editor and correspondents, which seem to indicate the common occurrence of mosquitoes in large numbers in the neighbourhood of Castle-Douglas and elsewhere in the county.

Later in the year I found this same species on the wing in Broxburn, near Edinburgh, and in Tow Law, in Durham County. In the latter place I was successful in finding, in a moss pool into which stable wash drained, a number of larvæ, from which I bred several adults.

A tropical congener of *pipiens*, known as *C. fatigans* (*quinque faciatus Say*), is a carrier of filaria, and mosquitoes of the same group are known to be the intermediate hosts of a number of spirochaltes, some of which are of pathological importance. The presence of these insects is therefore always of interest, and, when sufficiently numerous, it only requires the simultaneous presence of an organism noxious to man or beast of which they may be intermediaries to raise them to the status of dangerous enemies to his comfort and well-being. It is therefore desirable that attention should be given to their occurrence and frequency, and to the places where they breed, even in times when their numbers are comparatively insignificant, so that any dangerous multiplication may be dealt with promptly should the need for steps to suppress them be demonstrated or suspected. The habitat of the larvæ of the Culex species, where preventive measures should begin, is indicated in the character of the breeding places described in this paper. Collections of foul water not far from dwelling-places are the first which should be inspected and dealt with, either by demolition or, if that is inconvenient, by spraying with oil at intervals of seven days. It may be generally said that the occurrence of numerous small collections of water is more favourable to the multiplication of this mosquito than a few large collections. The Anopheles differs in its selection of a breeding place in so far that it prefers clean water. The presence of algæ is favourable to its multiplication, however. In larger sheets of water it may be found developing successfully in the

shelter of grass or weeds near the sides, where the larvæ find protection from the attacks of small fish. Measures for destruction to be economical must always be guided by a knowledge of the character of the district and the haunts favoured by the insects. Otherwise there may be great waste of labour in draining or filling water containing areas which are for one reason or another innocuous.

21st December, 1917.

Carlyle at Craigenputtock.

By Mr D. A. WILSON, M.A.

[It is much to be regretted that this valuable piece of work, which will form a part of Mr Wilson's forthcoming book on the Life of Carlyle, cannot, from limitations of space, be included here. A verbatim report of it appeared in the *Dumfries Courier and Herald* of December 26th, 29th, 1917, and January 2nd, 1918.]

Some Documents Relating to the Parish of Glencairn.

By Sir PHILIP J. HAMILTON-GRIERSON.

I.

The abstracts here printed have been made from transcripts of documents in the possession of Thomas Yule, Esq., W.S., and were made by him with a view to publication. Mr Yule lent the transcripts and permitted in cases of doubt or difficulty a comparison to be made of them with the originals. These documents—fifty in number—give a great deal of valuable information regarding the families who inhabited the parish of Glencairn in the 15th and 16th centuries; and the Society is much indebted to Mr Yule for his courtesy in placing them at its disposal.

II.

(1)

Precept of sasine directed by John Forster of Crawfurdstoun to Cuthbert Momorson, Robert Rogerson, and Thomas Rogerson to infeft Matthew Ferguson, eldest son and apparent heir of Thomas Ferguson of Cragdarrroch, and Elizabeth, daughter of John Menzies of Enauch, and the survivor and the heirs of their marriage, in the five merkland underwritten, lying in the lordship of Crawfurdstoun,—viz., the two and one half merkland of Conrall[1] and the 10s land of the place of Craigdarroch, and 23s 4d of the lands of Domycall.[2] Dated at Carntoun, 21st March, 1454-5.

(2)

Instrument of sasine in the five merkland of Bardenach, lying in the barony of Glencarne and sheriffdom of Drumfreis, in favour of Alexander Roresone [by Thomas M'Clameroch, sergeant of the barony of Glencarne, sent for that purpose by Sir Robert Crechtone of Sanquhar, to whom a precept had been directed by Alexander of Cunynghame, lord of Kilmauris and baron of the said barony, Sir Robert being "eme" of the said Alexander of Cunynghame, which narrated that the latter had seen and found sufficient a letter of retour belonging to the said Alexander Roresone regarding the said lands. Dated at Kilmauris, 12 May, 1455]. Done at the chief messuage, 15th May, 1455. Witnesses: Cuthbert Malmorsone and Ninian, his son and heir, Richard Edgar and Uchtred, his son and heir, John Stewart, William of Maxwell, David Stewart and Robert, his son and heir, Thomas of Schutlingtone of Stanehous and his son and heir, Dungall Rorysone, Cuthbert Rorysone, William Rorysone, Gilbert Rorysone, Gillespie Makracht, and Donald Makgachyn of Dalquhat.

(3)

Notarial instrument narrating the resignation by Andrew

[1] Conraith, see (20) below.

[2] Probably Dungallis mark and some adjacent land, see (20) below.

Nicoll, procurator of Sir John McIlhauch, chaplain of the chaplaincy of William Hawissoun in the burgh of Drumfreis, of a tenement within the said burgh, in which Thomas Broustar formerly resided, situated between the tenement of Allan Glow and that of Gilbert McIlduf, into the hands of the notary, who, at the request of the said Andrew, gave sasine thereof to Elizabeth, spouse of Thomas Ferguson of Cragdaroch and her heirs, for an annual payment of 4s to the chaplain for the time being. Done in the said tenement, 24th July, 1461. Witnesses: John Velch, Robert Gibson, and Gilbert McIlduf.

(4)

Precept of sasine directed by Alexander, lord of Kilmauris and lord of Glencarne, to Sir Robert Crechtone of Sanquhare, his bailie, to give sasine of the five merkland of Barndawnach, lying in the barony of Glencarne and sheriffdom of Drumfreis, to Alexander Rorison, according to the terms of the charter granted to him by the said Alexander lord Kilmauris. Dated at Edinburgh, 10th May, 1471. Witnesses: Archibald Cunynghame, the granter's brother, David Cathkert, Matthew Fergusone, Alexander Cunynghame, Robert Cunynghame, and Matthew Cunynghame.

(5)

Notarial instrument narrating the resignation of the lands specified in No. 4 into the hands of Alexander lord Kilmauris, and sasine thereof of new by the latter in favour of the former. Done in the house of John Thryne "in villa" of Edinburgh, 11th May, 1471.

(6)

Instrument of sasine granted by Matthew Fergussone, lord of Cragdarache, in favour of Archibald of Douglas, brother german of William Douglas of Drumlanrige, in the two merkland of Jarburgh with the tower and manor place of the same, together with the 20s land commonly called the 20s land above Cragdarache, called the Cukstoune, and the upper merkland of Cragly.[3] Done in the hall of the said place of Jarburgh, 26th April, 1475. Witnesses: Sir John Amuligane,

[3] Cragne, see (38) below.

vicar of Glencarne, Thomas Fergussone, chaplain, Patrick Anderson, Finlay Fergussone, and John McCayn.

(7)

Instrument of sasine by Robert Crechtoun of Sanchare and baron of the barony of Crawfurdston in favour of John Fergussoun, son and heir of Matthew Fergussoun of Cargdarach, and his heirs in the lands of Jarburghe, lying within the said barony and sheriffdom of Drumfreis. Done at the chief messuage of Jarburghe, 30th April, 1483. Witnesses: Robert Crechtoun, son and heir apparent of Edward Crechtoun of Kyrkpatrik, Thomas Crechtoun, John Crechtoun, son of the said Edward, Gilbert Blak, and John Barbur, notary public.

(8)

Instrument of sasine by Robert Crechton of Sanchare and baron of the barony of Crawfurdstoun in favour of John Fergussoun, son and heir of Matthew Fergussoun of Cargdarache, in the lands of Cargdarache, lying within the said barony and the sheriffdom of Drumfreis. Done on the said lands, 30th April, 1483. Witnesses: Robert Crechtoun, son of Edward Crechtoun of Kyrkpatrik, Thomas Crechtoun, John Crechtoun, son of the said Edward, Gilbert Blak, John Barbur, John Fergussoun, Thomas McChowbey, and Sir John Barbur, notary public.

(9)

Instrument of sasine by Alexander Chownynghame of Kylmawaris and baron of the barony of Glencarn, in favour of John Fergussoun of Cragdarauch and his heirs in the lands of Kadildacht[4] and Blarache,[5] lying within the said barony and sheriffdom of Drumfreis. Done on the lands, 2nd June, 1484. Witnesses: Thomas Kyrkpatrik of Closbowrne, Robert Charteris of Amisfeld, William Douglas of Drumlanrig, Royger Grerson of Laag, William Setlenton of Stanhous, and Alexander Chownynghame.

[4] Caitloch.

[5] Blairoh.

(10)

Instrument of sasine by Duncan fergussone [on a precept of sasine directed to him, John Grersone and Robert Crechtoun by Robert lord Crechtoun of Sankqhar and lord of the barony of Crawfurdston, dated at Sankqhar, 6th June, 1489], in favour of John Fergussoun of Cragdarach and Elizabeth Douglas, his spouse, in conjunct fee, and the survivor and the heirs of their marriage, in the five merk and 40 penny land, viz., the two merkland of Jarburch, the 10s land of Kuykland, the 20s land adjoining the Kuykland, and a merkland called the chapelland, lying in the said barony and sheriffdom of Drumfreis. Done in the hall of the manor of Jarbruch, 13th February, 1489-90. Witnesses: James Douglas of Auldtoun, George Douglas, younger, William Douglas, son and heir apparent of James Douglas of Drumlanrig, Duncan Hunter, James Wallange, John Ker, and Thomas Nevyn.

(11)

Notarial instrument narrating resignation of the lands specified in No. 10 by John Fergussone of Cragdarache into the hands of Robert lord Crechtone, and sasine thereof by the latter in favour of the former and his wife in conjunct fee, and the survivor and the heirs of their marriage. Done in the manor of Teregulis, 3rd June, 1489. Witnesses: Robert Charteris of Amisfelde, Edward Crechtone of Kyrkpatrik, Robert Crechtone, his son and heir, and Robert Doglas.

(12)

Charter of the merkland of Gargonane and the 10s land of Creachane, lying within the lordship of Creachane, commonly called the 10s land marching with the lands of Stronschillaucht, lying within the barony of Glencarn and sheriffdom of Drumfreis, granted by John Dynnome of Creachane in favour of Andrew Rorisone of Bardanacht for a price paid of which receipt is acknowledged, to be held of the granter and his heirs for the annual payment of a silver penny if asked for. Dated at Drumfreis, 4th March, 1498-99. Witnesses: William Cunynghame, bailie of Drumfreis, Edward Maxwell

of Kylbane, Henry Neilsone of Madynpap, Thomas Makbyrne, John Welche of largquhryne,[6] petir dynnome, the granter's son and heir apparent, and master John Makcolme, rector of Castelmilk.

(13)

Instrument of sasine by Duncan Fergussoun [on a precept of sasine directed to him, John Rorisone and John Greyersone by John Dynnome of Creachane, dated at Drumfreis, 4th March, 1498-99. Witnesses: The same as in No. 12] in favour of Andrew Rorisone in fee and heritage in the lands specified in No. 12. Done at the chief messuage of the lands, 5th March, 1498-99. Witnesses: Mathew Fergussone, John Greyrsone, fergus Fergussoune, son-in-law of John Dynnome of Creachane, Maurice Makclameracht, elder of Maxweltoun, John M'Crerik, and Thomas Huntar.

(14)

Precept of sasine by John Dynnome of Creachane to John Rorisone, John Greyrson, and Duncan Fergussone, to infeft Andrew Rorisone of Bardanacht in the lands specified in No. 12. Dated at Drumfries, 4th March, 1498-99. Witnesses as in No. 12.

(15)

Precept of clare constat directed to Robert Crechtone of Kirkpatrik, George Grersone, Phillip Cunynghame, George Cunynghame, his son, and Gilbert Grersone, by William Cunynghame, son and heir apparent of Cuthbert, earl of Glencarne, lord Kilmaweris, subject to the tutory of the said earl, and lord of the fee and barony of Glencarne, and the said earl, lord of the free tenement of the said lands and barony, to infeft Cuthbert Greirsone of Lag, son and heir of umquhile Roger Greirsone of Lag, in the lands of Terrarane, Corodow, Cormuligane, Murmulzeane, Croftane, and Marganyde. The precept narrates that the lands were held of the granters *in capite*, and had passed into their hands by reason of the death of Isabella Gordoune, spouse of the said

[6] Perhaps "Dalquhargzeane" (see *Historical MSS. Comm. XV. Report, App.*, Pt. viii., 65).

Roger, she having held the same with him in conjunct fee. Dated "apud civitatem glasguen," 3rd February, 1506-7.

(16)

Charter of the two and one half merkland of Barbuye, lying in the parish of Glencarne and sheriffdom of Drumfreis, by Michael Lyndesay of Fargarth and of the lands of Barbuye, with consent of Herbert Lindsay, his son and heir apparent, in favour of Andrew Roresone of Bardanach, his heirs and assignees, for a price paid, of which receipt is acknowledged, to be held from him and his heirs of the King in fee and heritage, for the usual services to the King. Dated at Edinburgh, 13th August, 1507. Witnesses: John Crechtoun of Hartwod, John Maxwell of Ardre, Roger Lindesay, Thomas Fergussoun, John Wallace, John Gray, and James Young, notaries public.

(17)

Precept of sasine directed to Robert Crechtoun of Kirkpatrik, John Rorisone, and Thomas Fergussoun, by Michael Lindesay of Fargarth and Barbuye, to infeft Andrew Rorisone of Bardanach in the lands specified in No. 16. Dated at Edinburgh, 14th August, 1507.

(18)

Instrument of sasine following upon No. 17. Done in the chief messuage of the lands, viz., "in loco habitationis" of Thomas Fergussoun, 22nd August, 1507.

(19)

Charter of confirmation of the four merkland of Jarburgh and Drummakcallane, lying in the barony of Crawfurdstoune *alias* Balmakane, by Robert lord Crechtoune of Sanchare and lord of the said barony, in favour of John Fergussoune of Cragdarrach. The charter narrates that John Fergussoune had held these lands of lord Crechtoune "hereditarie in capite," that the lands of the whole barony had passed into the King's hands by recognition, the greater part having been sold without his consent or confirmation, and had been forfeited as set forth in a decree of the Lords of Council, and

that lord Crechtoune had made composition with the King and his treasurer for new infeftment, and had obtained full permission to alienate the lands previously alienated and to infeft the former holders therein, to be held from him for the usual services. Dated at Edinburgh, 13th May, 1508. Witnesses: John Crechtoune of Hartwod, Robert Crechtoune of Kirkpatrik, Master William Crechtoune, rector of Kirkmechall, Robert Dalzell of Budhous, Edward Wallace, Thomas Fergussoune, and Edward Kirkpatrik.

(20)

Precept of sasine directed to John Crechtoun of Hartwod, Thomas Fergussone, and Thomas Craik, by Robert lord Crechtoun of Sanchare and lord of the barony of Crawfurdstoun *alias* Balmakane, to infeft John Fergussone of Cragdarrach in lands extending to eleven merks and 10s, and the two mills thereof, viz., the two and one half merkland, commonly called the conraich, a merkland called the chapelmark, a 20s land called the 20s land, and 8s land called the Cuketoun, a 10s land called Cragdarrach, a merkland called Dalchonie, a merkland called the Dame, a merkland called Dungallis mark, and a 32s land called the Neis and Graynes,[7] with their two mills—a corn mill and a waulk mill—lying within the said barony and sheriffdom of Drumfreis. These lands had been forfeited and restored, as narrated in No. 19 above. Dated at Edinburgh, 14th May, 1508.

(21)

Instrument of sasine following upon No. 20. Done at the chief messuage of Cragdarich, 25th May, 1508. The witnesses names are not given.

(22)

Precept of sasine directed to John Crechtoun of Hartwod, Thomas Fergussoune, and Thomas Craik by Robert lord Crechtoune of Sanchare and lord of the barony of Crawfurdstoune *alias* Balmakane, to infeft John Fergussoune of Crag-

[7] In No. 42 below these lands are said to be a 42s land.

darrach in the four merkland of Jargburgh and Drummakcallane, lying within the said barony and sheriffdom of Drumfreis, which lands had been held of lord Crechtoune *in capite* and had been forfeited and restored, as narrated in No. 19. Dated at Edinburgh, 14th June, 1508.

(23)

Precept of sasine directed to Thomas Cunynghame, Cuthbert Fergusson, and John Setlington of Stanhouse by Sir William Cunynghame, son and heir apparent of Cuthbert, earl of Glencarne, and lord of the fee of the earldom and barony of Glencarne, with the earl's consent, to infeft Andrew Rorisone of Bardanach in the five merkland of Bardanach, lying within the said earldom and barony and sheriffdom of Drumfreis. The precept narrates the recognition and forfeiture of the lands of the said earldom and barony which had pertained to Sir William in fee and to the earl and Marion Douglas, his spouse, in liferent, and the new infeftment of Sir William by the King with authority to give infeftment to the holders of the lands before the said recognition and forfeiture, of whom Andrew Rorisone was one. Dated at Drumfreis, 28th January, 1511-12.

(24)

Charter of confirmation of the five merkland of Bardannach, which had been the subject of recognition, as narrated in No. 23, by Sir William Cunynghame, son and heir apparent of Cuthbert, earl of Glencarne, and lord of the fee of the earldom and barony of Glencarne, in favour of Andrew Rorisone of Bardanoch, for the usual services. Dated at Edinburgh, 28th January, 1511-12. Witnesses: Master Christopher Boid, vicar of Stevynstoun, Thomas Cunynghame of Pacokbank,[8] Alexander Cunynghame, son and heir apparent of Alexander Cunynghame of Ross, Robert Cunynghame of Haikhed,[9] George Cunynghame in Castelfarne, Oswald Cunynghame, his brother german, and Archibald Berclay.

[8] Perhaps "Paddokbank."
[9] Aikhed.

(25)

Instrument of sasine following upon No. 23. Done at the chief messuage of Bardannach, 14th February, 1511-12. Witnesses: Andrew Rorisone, junior, Cuthbert Rorisone, Stephen Fergussone, John Makconnell, Lawrance Fergussone, and John Wattison.

(26)

Charter of confirmation of the lands specified in No. 15, granted by Sir William Cunynghame, son and heir apparent of Cuthbert, earl of Glencarne, and lord of the fee of the earldom and barony of Glencarne, narrating the recognition, forfeiture, and restoration of the barony as in No. 23, in favour of Cuthbert Grerson of Lage and his heirs for the usual services, together with ward, relief, and marriage. Dated at Glencarn, 8th August, 1512. Witnesses: Thomas Cunynghame, George Cunynghame of Castelfarn, Oswald Cunynghame, and Thomas Grerson.

(27)

Instrument of sasine by Gilbert Grerson on a precept of sasine directed to him, Roger Grersoun, George Grersoun, and John Grersoun, by William Cunynhame, lord of the fee of the barony of Glencarne, and Cuthbert earl of Glencarne, lord Kilmawaris, lord of the free tenement of the said barony, in favour of Cuthbert Grersoun of Lag, whose brother Roger acted as his bailie, in the five merkland of Trewrerane, and the seven and one half merkland of Crowchdow, Murmullich, Cormilligane, and Marganady, lying within the said barony and sheriffdom of Drumfreis, which lands had been held by the said Cuthbert Grerson before the recognition, etc., narrated in No. 23. Done at the chief messuage of the lands of of Trewrerane, in the house of umquhile John Grersoun, 8th October, 1512. Witnesses: Gilbert Grersoun, George Grersoun, John Grersoun, Donald McCaig, Fergus Edzare, William McCaw and Nevin McConnell.

(28)

Procuratory of Resignation by Peter Dennum of Croquhan to resign into the hands of William Cunynghame, lord of the

fee of the barony of Glencarn, and Cuthbert, earl of Glencarn, lord Kilmawris, and lord of the free tenement of the said barony, the merkland of Gargonane, the 10s land of Gargonane immediately adjacent, the merkland of Lochintore, the one merkland of Cragney, and the one merkland called the litill merkland, lying within the said barony and sheriffdom of Drumfreis, which the said Peter held in capite of the said William and the earl his father. He appointed as his procurators John Creichtoun of Hertwod, Thomas Gourlay, burgess of Edinburgh, Cuthbert Rorison, Gilbert Momerson, Francis Cunynghame, Archibald Gardinare, and John Fergussone of Cragdarroch, to resign the said lands in favour of Andrew Roryson of Bardanach and his heirs. Dated at Edinburgh, 8th April, 1513. Witnesses: Sir William Douglas of Drumlanrig, James Maitland of Auchingassill, Hugh Somervill, Ninian Monerson of Strowane,[10] William Maitland, and John Maitland.

(29)

Instrument of sasine by Sir William Cunynghame and the Earl, his father, in favour of Andrew Rorisone of Bardanoch, in the lands specified in No. 28, which had been resigned into their hands by Peter Dennum of Creachane. Dated at Edinburgh in the house of the earl, 22nd July, 1513. Witnesses: Sir William Douglas of Drumlanrig, Roger Greirsone of Lag, Laurence Greirsone of Kirkbridrig, Kentigern Eklis of that Ilk, Cuthbert Fergussone, Alexander Langmure, and Master Cristopher Boid, notaries public.

(30)

Charter of confirmation of the lands of Cadlltaich[11] by Sir William Cunynghame, son and heir apparent of Cuthbert, earl of Glencarne, and lord of the fee of the earldom

[10] Perhaps another form of "Arynstroane" mentioned in January, 1506-7, as occupied by Ninian Mowmersoun (*RMS.*, ii., 3025), or "Arstroan," of which Cuthbert Momerson seems to have been laid in 1472 (*Historical MSS. Comm. XV. Report, App.*, Pt. viii. 35). Ninian was son of Cuthbert, see No. 2 above.

[11] See No. 9 above.

and barony of Glencarne, in favour of Thomas Fergussone of Cragdarroch, who had held the lands before the recognition and forfeiture narrated in No. 23, for the usual services, with ward, relief, and marriage. Dated at Edinburgh, 23rd July, 1513. Witnesses: Sir William Douglas of Drumlanrig, Alexander Hammyltoun of Colirskeych,[12] Master Christopher Boid, vicar of Stevyngstoune, Robert Cunynghame, Thomas Fergussone, Alexander Maknele, clerk, John Gray, and James Zoung, notaries public.

(31)

Precept of sasine directed to George Cunynghame, Oswald Cunynghame, and Cuthbert Fergussone by Sir William Cunynghame, son and heir apparent of Cuthbert, earl of Glencarne, and lord of the fee of the earldom and barony of Glencarne, and the said earl, lord of the free tenement of the same, to infeft John Fergussone of Cragdarrach in the £5 lands of Erblary, Benboye, and Larclachy, lying within the said barony and sheriffdom of Drumfreis, which lands the said John had held before the recognition and forfeiture narrated in No. 23. Dated at Edinburgh, 23rd July, 1513.

(32)

Charter of confirmation of the lands specified in No. 31 by Sir William Cunynghame and the earl his father in favour of John Fergussone of Cragdarroch. Dated 30th July, 1513. Witnesses: The same as in No. 30.

(33)

Charter of confirmation of the lands specified in No. 28, being a four merkland and a 10s land of Creachane, by Sir William Cunynghame and the earl, his father, in favour of Andrew Roresone of Bardanoch, for the usual services, with ward, relief, and marriage. Dated at Edinburgh, 23rd July, 1513. Witnesses: Sir William Douglas of Drumlanrig, Roger Greirsone of Lag, Laurence Greirson of Kirkbridrig, Kentigern Eklis of that Ilk, Cuthbert Fergussone, Alexander

[12] Commiskeith.

Langmuir, Master Christopher Boid and John Gray, notaries public.

(34)

Instrument of resignation of the lands specified in No. 33 by Petir Dennoun of Creachane into the hands of Sir William Cunynghame and the earl, his father, in favour of Andrew Rorisoun of Bardanoch. Done in the chamber of the manor place of Bardanoch, 11th August, 1513. Witnesses: Cuthbert Fergussoun, Thomas Reyd, Walter Reid, Thomas McCrerik, John Lowre, and Andrew Lowre.

(35)

Instrument of obligation by Peter Dennoum of Creachane, by which, after narrating the instruments Nos. 33 and 34, he bound himself to warrant Andrew Rorison of Bardanoch in the peaceable possession of the lands granted to him by No. 33. Dated at the manor place of Bardanoch, 11th August, 1513. Witnesses: Cuthbert Ferguson, Andrew Lowre, Thomas Reyd, Wat Reid, Thomas McCrerik, and John Reid.

(36)

Instrument of sasine by Cuthbert Fergussoun, on a precept of sasine directed to him, George Cunynghame, Oswald Cunynghame, and Roger Gordoun by Sir William Cunynghame, son and heir apparent of Cuthbert, earl of Glencarne, and lord of the fee of the earldom and barony of Glencarne, in favour of Andrew Roriesoun of Bardanoch, in the lands specified in No. 33, which had been resigned by Peter Dennone of Creachane. Done on the lands of Gorgonane at the house of Thomas Hunter, 11th August, 1513. Witnesses: Peter Dennone of Creachane, Donald Heroun, Andrew Lowre, John Lowre, and Thomas Reid.

(37)

Instrument of sasine by John Grersone on a precept of clare constat directed to him, George Cunynghame, Oswald Cunynghame, Alexander Langmure, and Cuthbert Fergusson by Sir William Cunynghame, lord of the fee of the barony

and earldom of Glencarne, and the earl, his father, lord of the free tenement of the said earldom and barony, dated at Edinburgh, 23rd July, 1513, in favour of Roger Grersone, brother and heir of umquhile Cuthbert Grersone of Lag, in the twelve and one half merkland of Terrerane, Cormiligane, Corochdow, Murmullach, Croftane, and Marganady, lying within the said barony and sheriffdom of Drumfreis. Done at the chief messuage of the lands of Terrerane, 12th August, 1513. Witnesses: Thomas Grersone, Gilbert Grersone, George Lindesay, and Thomas Clerk, deacon.

(38)

Precept of clare constat directed to Cuthbert Fergussoun, Andrew Rorysoun, and Alexander Langmur by Cuthbert, earl of Glencarne, lord of the free tenement of the lands underwritten, and William Cunynghame, his son and heir apparent, lord of the fee of the said lands, to infeft Gilbert Rorysoun, son and heir of umquhile Andrew Rorysoun, in the lands of West Creachane—viz., the lands of Gargonane, Caldsyd, Little Mark and Cragnee, extending to four merks and 10s of land, lying within the barony of Glencarne and sheriffdom of Drumfreis. Dated at Edinburgh, 31st March, 1514. Witnesses: George Kelso, Thomas Kelso, Amer Kirkko of Sondaywell, Herbert Johnstoun of Pettyname, and Master Christopher Boid, notary.

(39)

Instrument of sasine by Andrew Rorysone proceeding upon No. 38. Done on the ground, 20th May, 1514. Witnesses: John Fergussone of Cragdarach, Alexander M'Gachane of Dalquhete, Robert Rorysone, Thomas Hunter, Sir John Fergussone and Sir Gilbert Amuligane, chaplains.

(40)

Instrument of sasine by Andrew Rorysone [on a precept of clare constat directed to the same bailies as in No. 38, granted by Cuthbert, earl of Glencarne, and William Cunynghame, his son. Place of execution, date, and witnesses, the same as in No. 38] in favour of Gilbert Rorysone, son and heir of umquhile Andrew Rorysone of Bardanoch, in the five

merkland of Bardanoch, lying within the barony of Glencarn and sheriffdom of Drumfreis. Done on the ground of the said lands and the chief messuage thereof, 20th May, 1514. Witnesses: George Woyd, Thomas Craik, Thomas Robsone, Alexander Russell, Malcolm M^{c}[ ]s, Robert Rorysone, and Sir John Fergussone, chaplain.

(41)

Instrument of sasine by Cuthbert Fergussone on a precept of clare constat directed to him, James Crechtone, Thomas Fergussone, Alexander Russell, and Thomas Craik by Robert, lord Crechtone of Sanchar and lord of the barony of Crawfurdstane, *alias* Balmakane [dated at Sanchar, 1st November, 1514. Witnesses: John lord Maxwell, John Gordoun of Lochinver, James Matland of Auchingassill, and John Kirkpatrik of Alisland] in favour of Thomas Fergussone, son and heir of John Fergussone of Cragdarroche, in the four merkland of Jargburgh and Drummakallane, lying within the said barony and sheriffdom of Drumfreis. Done on the lands of Jarburgh and Balmakane, 3rd November, 1514. Witnesses: Gilbert Rorisone of Bardannoch, Patrik Fergussone, Thomas McCrerik, and Thomas Lang.

(42)

Instrument of sasine by Cuthbert Fergussone on a precept of clare constat [directed to him, James Crechtone, Thomas Fergussone, Alexander Rissall, and Thomas Craik by Robert, lord Crechtone of Sanchare, lord of the barony of Crawfurdstone, *alias* Balmakenen, dated at Sanchar, 1st November, 1514. Witnesses: John lord Maxwell, John Gordoun of Lochinver, James Matland of Auchingassill, and John Kirkpatrik of Alesland] in favour of Thomas Fergussone, son and heir of umquhile John Fergussone of Cragdarroch, in the lands and mills specified in No. 20.[13] Done on the said lands of Cragdarroch, 3rd November, 1514. Witnesses: Gilbert Rorysone of Bardannoch, Patrik Fergussone, Edward Fer-

[13] The lands of Neis and Graynes are here said to extend to a 42s land. See No. 20 above.

gussone, Malcome Fergussone, Thomas M'Crerik, and Thomas Lang.

(43)

Charter of confirmation of the lands of Cadiltaich,[14] lying within the barony of Glencarne and sheriffdom of Drumfreis, by Sir William Cunynghame, and Cuthbert, earl of Glencarne, his father, on the narrative of the recognition and forfeiture as stated in No. 23, in favour of Thomas Fergussone, son and heir of umquhile John Fergussone of Cragdarroch, in fee, for the usual services with ward, relief, and marriage. Dated at Edinburgh, 30th July, 1515. Witnesses: Thomas Fergusone, John Fergusone his son, Thomas Cunynghame, Master Christopher Boyd, vicar of Stevinstoun, Sir Ninian Cunynghame, chaplain, John Powat, William Galloway, Alexander Makneyt, and James Zoung.

(44)

Precept of sasine directed to George Cunynghame, Oswald Cunynghame, Cuthbert Fergusone, and Edward Fergusone by Sir William Cunynghame, son and heir of Cuthbert earl of Glencarne, and lord of the fee of the earldom and barony of Glencarne, to infeft Thomas Fergusone, son and heir of umquhile John Fergusone of Cragdarroch, in the lands specified in No. 43. Dated at Edinburgh, 30th July, 1515.

(45)

Instrument of sasine by Edward Fergusone proceeding upon No. 44. Done on the lands of Cadiltaich,[15] 13th August, 1515. Witnesses: Duncan Fergusone, Thomas Layng, Alexander Muligyn, Fergus Macrerik, John Makcrath, Andrew Roresone, and Thomas Reid.

(46)

Notarial instrument narrating that Thomas Fergussone of Cragdarroch compeared in the parish church of Glencarne and laid upon the high altar the sum of £40, and the yearly

[14] See No. 9 above.
[15] See No. 9 above.

maill of the lands of Corodow, contained in the reversion, and required Malcolme McGachane of Dalquhet to receive the said sum and the letter of tack. The said Malcolme thereupon accepted the said sum, renounced all right and tack to the said lands, except only the letter of tack, and bound himself to remove at the ish thereof, and granted the said lands to be redeemed. The said Thomas craved instruments of the notary in presence of Cuthbert Fergussone in Glencroshe, Fergus Fergussone in the Meiss,[16], Duncan McGachane, son of the said Malcome, and Sir John Thomsone, curate of Glencarne. Done in the church of Glencarne, 13th June, 1519.

(47)

Notarial instrument narrating the division of certain cropland of the lands of Auchincheane, lying to the croft of Garharrow and likewise to the merkland of Dow McCall, between Sir William Cunynghame, master of Glenkarne, with the counsel and advice of Robert Kyrkpatryk, Brakoche, his vassal, on the one part, and Robert Fergussone of Cragdarroch, on the other part, "past in one woce and assent" with the counsel of Adam Kyrkco of Chapell of Gleneslane, Petir Dennum of Crechan, Robert Crychtoun, tutor of Crawfurdstoun, Arthur Fergussone of Glencroshe, and Cuthbert Cunynghame in Lochour, by which the said lands were "delt, dewidit, proppit, hoillit, merchit, and methit," and the parties bound themselves "to stand and abyed yrat—viz., at the said proppis and hoillis and ye merche dyk to be led yrupon." Dated 29th June, 1563. Witnesses: Andrew Roresone, tutor of Bardannoch, George Melegan in Bennocan, John Sloan, and John Fergussone in Brache.

(48)

Instrument of sasine by William Cunynghame, master of Glencarne [on a precept of clare constat directed to him by Alexander, earl of Glencarne, lord of Kilmaveris, and lord of the fee and superiority of the lands underwritten, dated at Finlastoun, 21st July, 1565], in favour of Thomas Roresone,

16 Neiss.

son and heir of Andrew Roresone, in the five merkland of Bardennoch and the £3 3s 4d land of Crechane, lying within the barony of Glencarne and sheriffdom of Drumfreis. Done at the manor place of Bardannoch and on the said lands of Creachane, 5th July, 1566. Witnesses: Roger Greirsone of Lag, Robert Fergusone of Cragdarroch, John Roresone in Caldsyd, John Greirsone of Halidayhill, residing at Dalskaith,[17] and George Vilsone in Marginane.

(49)

Charter of the annual rent of 10 mks. to be uplifted at the Feasts of Pentecost and St. Martin in winter, out of the 3s 4d land, lying between the lands now occupied by John Wallace, called David's John on the east, and the lands of Harbert Wallace on the west, in Carzele, parish of Kirkmaho and sheriffdom of Drumfreis, granted by John Wallace in Carezeill, for a certain sum paid to him, in favour of Egidia Maxwell, sister of William Maxwell of Garnsalloch, her heirs and assignees, in implement of a contract dated at Carzele, 26th March, 1584, between the granter and the said Egidia, the latter to pay to the former a silver penny if required. Dated at Carzele, 26th March, 1584. Witnesses: William Maxwell of Garnsalloch, John Stewart, son of John Stewart, rector of Kirkmaho, Kentigern Jhonstoun, and Thomas Frissele in Carzele.

(50)

Instrument of sasine by John Fareis in Lowthet, bailie of James, earl of Hartfell, and James, lord Jonstoun of Lochwood, his eldest son, in favour of Nicoll Broun in Apilgirth in liferent and John Brown in Cleuchheidis, his son, in fee, in the 40s land of Cleuchheidis, lying within the parish of Sibbelbie and stewartry of Anandaill, but always under reversion [in implement of a contract between the said parties, containing a precept of sasine directed to the said bailie, and dated at Lochwood, 26th November, 1647. Witnesses: ffrancis Scot of Babertoun, Hew Scott in Leddockholme, John Armstrong, and Mr William Thomsoun, servitor to the said

[17] Dalskairth.

earl]. Done on the ground, 7th January, 1648. Witnesses: John Fareis, younger, in Sibbelbie, Robert Cowan in Sibbelbiesyd, David Jardein in Hallhillis, and William Bell in Goukaburren.

III.

Notes.

The documents here abstracted supplement in some interesting particulars the information regarding various families which was published in the paper regarding The Sheriff Court Book of Dumfries (1537-38). Thus we find that Uchtred Edgar of Ingliston, who is there mentioned, was in all probability the son of Richard Edgar,[1] and that Donald M'Gachane of Dalquhet was a witness to an instrument dated 15th May, 1455.[2] In the present paper, however, we shall confine our observations to the earlier history of the Fergussons of Craigdarroch.

An interesting account of this family, based upon family papers, entries in public records, and information gathered from local histories and traditions, is to be found in *Records of the Clan and Name of Fergusson, Ferguson, and Fergus,* edited for the Clan Fergus(s)on on Society by James Ferguson and Robert Menzies Fergusson.[2a] The existence of this work renders it unnecessary to do more than show how the documents of which abstracts are given confirm or supplement the facts already published, and refer to some matters which have hitherto escaped notice.

The oldest dated charter relating to this family is a charter of the lands of Jarburch and mill of Balmakane, dated 6th July, 1398, granted by John Crawford of Balmakane in favour of Jonkyne Fergusson, lord of Craigdarroch.[2b] In 1455 Thomas Fergusson was the laird of Craigdarroch. He married Elizabeth, daughter of John

[1] Abstract, No. 2.

[2] Abstract, No. 2. See also Nos. 39 and 46.

[2a] Edinburgh, 1895. A supplementary volume was published four years later.

[2b] *Records, cit. supr. cit.*, pp. 377, 405-6.

Menzies of Enach, and had a son named Matthew.[3] We hear of Thomas and his wife in 1461,[4] and we find an instrument of sasine dated 26th April, 1475, by Matthew Fergusson, laird of Craigdarroch.[5] On 30th April, 1483, John, son and heir of Matthew, was infeft in the lands of Craigdarroch and Jarburghe;[6] and we learn that his wife was Elizabeth Douglas.[7]

We find instruments in favour of John Fergusson of Craigdarroch dated in 1508[8] and 1513;[9] and in July of the latter year a charter of the lands Caitloch was granted in favour of his son Thomas.[10] John was witness to an instrument dated 20th May, 1514;[11] and on 3rd November, 1514, Thomas, his son, was infeft as his father's heir in the lands of Jarburgh and Drummakcallane.[12]

There seems to have existed a deadly feud between the Douglases of Drumlanrig and the Crichtons of Sanquhar, and in this the lairds of Craigdarroch became involved as adherents of the former. On 16th December, 1510, we find a supplication craving that John Fergusson of Craigdarroch should be ordained to produce letters purchased by him anent the giving of security by John Crichton of Hertwod as one of the complices of Robert Crichton of Kirkpatrick, then at the horn for the slaughter of Alexander and Robert Fergusson;[13] and in September, 1512, William Douglas of Drumlanrig, John Fergusson of Craigdarroch, Thomas Fergusson, his son, and their complices, accused as art and part of the

[3] Precept of Sasine dated 21st March, 1454-55. Abstract No. 1.

[4] Instrument dated 24th July, 1461. Abstract No. 3.

[5] Abstract No. 6.

[6] Two instruments dated 30th April, 1483. Abstracts Nos. 7 and 8. See also No. 9.

[7] Instrument dated 15th February, 1489-90. Abstract No. 10.

[8] Abstracts, Nos. 19, 20, 21, 22.

[9] Abstracts, Nos. 31, 32.

[10] Abstract, No. 30. See No. 9.

[11] Abstract, No. 39.

[12] Abstract, No. 41. See Nos. 42, 43, 44, 45, 46.

[13] *Acta Dom. Conc.*, xxii., fol. 10.

slaughter of Robert Crichton of Kirkpatrick, were discharged because the said Robert was a rebel at the horn, Fergy and Robin Fergusson being, however, exempted from the discharge.[14]

This case has a special interest, as it illustrates the view which the old law took of the position of the outlaw. It shows—and there are other authorities to the same effect[15]—that no process could be maintained for the slaughter of one at the horn, whether for civil or criminal cause. In 1587 the King, with the advice of Parliament, consulted the lords of council and session "anent slauchter of partiis at the horn;"[16] and in 1612 it was enacted that the fact that the person slain was at the horn for civil cause should be no defence for the man who slew him.[17] In the old days the relatives of the outlaw were forbidden to "ressett, supple, or manteine or do favors to [him] under pane of deid and confiscatioun of" their moveable property.[18]

The next entry in regard to the feud to which we have referred relates to an arrangement come to in 1513 by which Sir William Douglas and Crichton were not to be summoned

[14] Pitcairn, *Criminal Trials*, i., 79; *Transcript of MS.*, "Curia Itineris Justiciarie," under date September 24th, vol. iii., pp. 298 ff. (H.M. Register House, Edinburgh). Robert Crichton's widow was Gelis Greresoun. On 14th December, 1512, she made an unsuccessful application for terce out of certain lands (*Act. Dom. Conc.*, xxiv., fol. 84).

[15] Hume, *Commentaries on the Law of Scotland regarding Crimes*; Edinburgh, 1844, i., 187 f. and note.

[16] St., 1587, c. 26; *Fol. Acts*, iii., 448.

[17] St., 1612, c. 3; *Fol. Acts*, iv., 471. See also St., 1649, c. 96, and 1661, c. 217; *Fol. Acts*, vi., pt. ii., 173; vii, 203. By the last of these Acts it was provided that homicide committed "in the persute of denunced or declared Rebells for capital crimes or of such who assist and defend the rebells and masterfull depradators by armes and by force oppose the persute and apprehending of them which shall happen to fall out in tyme comeing, nor any of them, shall not be punished by death." cp., F. Pollock and P. W. Maitland, *The History of the English Law before the time of Edward I.*, 2nd ed., Cambridge, 1898, ii., 449.

[18] St., 1540, c. 96, and 1592, c. 65; *Fol. Acts*, ii., 372; iii., 574.

to one another's courts, and Craigdarroch was exempted from Crichton's jurisdiction.[19]

On 27th February, 1515-16, James Douglas of Drumlangrig sought exemption for himself and his men, tenants and servants, from the jurisdiction of Robert, Lord Crichton of Sanquhar, Sheriff of Dumfries. He alleged that Lord Crichton had purchased a commission to hold a "court of quera," and had summoned him and his retainers to appear for their destruction, Lord Crichton being at mortal enmity with him and them, and therefore a "suspect judge." The lords of council continued the case to a later date, and meanwhile granted exemption.[20] A year later—on 16th February, 1516-17—the case came again before the lords. Drumlanrig repeated his averments, and added that his father had been exempted from the jurisdiction of Lord Crichton's father, and that since their decease the old enmity had continued, mainly on account of the slaughter at Edinburgh by Lord Crichton's people of his son, James Douglas. The lords granted exemption and ordained that Wauch of Shawis and John of Menzies of Castlehill should be deputes to minister justice to Drumlanrig and his men, and should hold courts in what place within the sheriffdom they thought convenient.[21]

We may be permitted to venture on a short digression and ask—what was a court of "quera?" By an enactment of 1475,[22] it was provided that "Becauss there has bene ane abusione of law vsit in tymes bigane be shireffis, stewartis, bailzeis and utheris officiaris in the haldin of courtis of guerra to the grete hereschip and skathe of our souereine lordis liegis and of his awin hienes in his Justice Aris quhilkis ar spylt be the said guerra courtis, It is statut and ordanit that in tyme to cum thar be na courtis of guerra haldin be na maner of persons under the pane of punicione as for a man slaer and a Refare of his gudis and vsurpare of the Kingis autorite."

[19] *Acta Dom. Conc.*, xxv., 177, 195. Sir William died the day after Flodden.

[20] *Ib.*, xxvii., fol. 190.

[21] *Ib.*, fol. xxix., fol. 12.

[22] St., 1475, c. 11; *Fol. Acts*, ii., 112.

Skene[23] admits that he knew nothing of the special jurisdiction of these courts. He cites a passage from the *Book of the Feus*—" Si ministrales alicujus domini inter se guerram habuerint, comes sive judex, in cujus regimine ean fecerint, per leges et judicia ex ratione prosequatur "—and adds, " quhilk forme of courtes being particular justice courtes, was prejudicial to the jurisdiction of the justice and his deputes, and grievous to the lieges of this realme . . ." Sir George Mackenzie,[24] in his observations on the statute, says of those courts that they seem to have been courts of neighbour-feud and riots. " Guerra " means " war " or " feud."[24a] and is sometimes spelled " querra;"[25] and of this " quera " may be a mis-spelled form.

On 2nd April, 1517, Drumlanrig complained that Lord Crichton had broken lawburrows by setting upon Drumlanrig's servants, debarring Craigdarroch and Fergus Fergusson of the Neiss from the parish church, and by the slaughter of one of Drumlanrig's servants. Crichton was acquitted, save as to the last count, which was remitted to the next justice Ayre.[25a]

On 19th July, 1518, Lord Crichton was summoned by Drumlanrig to hear and see him and Thomas Fergusson of Craigdarroch, his kinsmen, servants, and partakers exempted from his lordship's jurisdiction on account of the mortal enmity occasioned by the slaughter of Thomas Fergusson's father.[26]

At a later date Ninian Crichton of Bellibocht, tutor[26a] of Robert, Lord Crichton of Sanquhar, and sheriff wardour of Dumfriesshire, seems to have taken up the quarrel. In 1524

[23] *De verb. significatione*, s.v. Gverra.

[24] *Works*, Edinburgh, 1714, i., 217.

[24a] In a question as to a right to teinds between the abbeys of Melrose and Kelso we read of " dissensiones et querras inter dictos abbates " (*Liber Sancte Marie de Melros*, ii., 577).

[25] See Ducange, s.v., " Guerra," " Querra."

[25a] *Act. Dom. Conc.*, xxix., fol. 187.

[26] *Act. Dom. Conc.*, xxxi., fol. 128.

[26a] *Ib.*, xxxiv., fol. 84.

he and Drumlanrig, each for himself, his kin, friends, and servants bound themselves, having touched the Holy Gospels, to abide in all causes between them by the decision of certain arbiters.[26b] But in 1532 the feud seems to have been rekindled by the slaughter of Thomas Wilson, one of Drumlanrig's servants, committed by Ninian and his household. An arrangement was come to, and sanctioned by the lords of council, by which Edward Johnston, burgess of Dumfries, should act as Ninian's depute in all matters regarding Drumlanrig and his retainers. This, however, was disregarded by Ninian, who fined Thomas Fergusson of Craigdarroch, and summoned him and others to appear before him in the Sheriff Court of Dumfries. The lords of council decreed that Johnston should act as previously agreed.[26c]

Shortly before the beginning of this feud—about 1508—Thomas had married a daughter of Lord Crichton.[27] He was succeeded by his son Robert, who had married Janet Cunynghame, daughter of the Earl of Glencairn, about 1534,[28] and who was served heir to his father on 28th February, 1563-64.[29] He appears to have married secondly Geillis Maxwell, who died on 8th August, 1584.[30] She is not mentioned in the Craigdarroch papers. He died on 16th July, 1587,[31] and was succeeded by his son John.[32] John's first wife, Agnes Kirkpatrick, is not noticed in the Craigdarroch papers. She died on 19th May, 1572, survived by four children, John, Robert,

[26b] *Ib.*, xxxiv., fol. 89.

[26c] *Ib.*, xliii., fol. 91; *Act. Dom. Conc. et Sess.*, ii., fol. 184. Ninian Crichton died between 1545 and 1547 (*Reg. of Acts and Decreets*, iii., fol. 444; *Act. Dom. Conc. et Sess.*, xxiv., fol. 51). He was survived by a son David and a natural son George, of whom the latter succeeded his father and brother (*Ib.*, xxv., fol. 166).

[27] *Records, ut supr. cit.*, p. 386.

[28] *Ibidem.*

[29] *Ib.*, p. 378.

[30] Her will is recorded 7th December, 1594 (*Edinburgh Comm.*).

[31] His will is recorded 30th April, 1588 (*Edinburgh Comm.*).

[32] *Records, ut supr. cit.*, p. 378. An instrument of Reversion by Robert's son, Edward, is dated 18th June, 1571 (*Lag Charter Chest*, No. 134).

Barbara, and Elizabeth.[33] John is said to have married secondly, as we suppose, Margaret, daughter of Lord Carnwath.[34] Robert Fergusson was infeft as heir to his father on 5th September, 1612. For the subsequent history of the family reference may be made to the *Records*, so often cited.

25th January, 1918.

Chairman—Provost S. Arnott, V.P.

Three valuable papers were read at this meeting—*The Science of Fresh Water Lakes*, by Mr W. H. Armistead; *Some Plant Notes*, by the Chairman; and *Reminiscences of the Stewartry*, by Mr C. Marriott, M.A. It is to be regretted that the Editors have not at their disposal sufficient space to do justice to these papers, which are held over to the next volume.

22nd February, 1918.

Chairman—Mr A. Turner, V.P.

The Petrol Motor in Warfare.

By Mr A. C. Penman.

[This absorbing lecture on a topic of general public interest was illustrated with lantern slides. A verbatim report appeared in the *Dumfries Standard* of February 23rd and 27th and March 6th.]

[33] Her will is recorded 29th September, 1579 (*Edinburgh Comm.*).

[34] *Records, ut supr. cit.*, p. 336.

Andrew Heron and his Kinsfolk.

By B. M. H. ROGERS, M.D., Lieut.-Colonel R.A.M.C. (T.F.).

The Heron family had lived in the neighbourhood of Newton-Stewart for over 300 years before Andrew Heron was born at Kirrouchtree, the house where his ancestors had lived since they came to Scotland.

Burke traces their ancestry to a Norman adventurer from Caen named "Hairuns," who came with William the Conqueror and settled down in Northumberland.[11] Readers of Walter Scott will remember that James IV. of Scotland passed the night before the battle of Flodden at Ford Castle, the home of the English Herons.

How the family came to Scotland is told as follows:—[5] In the early part of the 14th century a certain Gerald Heron, sorely wounded in a border fight in the neighbourhood of Newton-Stewart, was carried to the home of the M'Lurg, in view of a possible good ransom, and incidentally to be nursed back to health by the laird's daughter. In due time this being accomplished, he very properly and romantically married his nurse and received the property of Kirrouchtree as his marriage portion from his father-in-law. Lewis,[12] in his *Topographical History of Scotland*, states that it was a Miss M'Kie who showed her skill as a nurse and brought the estate into the family; the name of the lady is immaterial.

It is from a long line of Herons that Andrew is descended. Of many of these there is little known beyond names, a few dates of succession to various properties, and the names of wives. Indeed, much confusion is caused by the frequent repetition of the same Christian name, and it becomes very difficult to distinguish between the many Andrews and Patricks, these two names being the ones that they most favoured. One peculiarity seems common to all, viz., a judicious selection of a wife who would add to the family acres, for Cumloden, Machremore,[13] Kirrouchtree, perhaps Bargally, as well as others which it is now impossible to identify, came through a wife to the Herons. So that by the time we reach Andrew Heron's father, Patrick, large tracts of land and rich

farms were their heritage, and for the time and locality they must have been wealthy.

Andrew Heron was the third son of Andrew Heron of Kirrouchtree, in which house he was born about 1660. Whether his father found the estate too large, or to avoid the death duties of the time, cannot be stated, but he made a pre-mortem distribution of some of his property; to Andrew he gave Bargally and Dalaish Cairns,[14] while Kirrouchtree and his other properties were to go to his eldest son, Patrick, at his death.

Andrew, however, did not live at Bargally, which, as will be shown later, was not then a very attractive residence, but continued even after his marriage to Mary Graham of Floriston to reside in his father's house. No doubt his assistance in the rearing of cattle and driving them to the Border towns (for Patrick was a very successful breeder)[4] was useful at home. But when M'Kie of Larg died, he took a "tack of the Mains" or home farm at Larg and moved there, no doubt to carry on farming and possibly cattle breeding on his own account.

Larg is shown on the Ordnance map as "Large Tower or Castle of Larg," and there is still to be seen the remains of a "Peel Tower" in a field near what, I think, can be identified as the farm or "Mains."

In this humble cottage, for it is little more (though no worse or better than many more about there), Andrew and his first wife lived and their five eldest children were born. It is from their third son that I trace my connection with the Heron family. For seven years they lived in this house, but "meeting with much disturbance from the heirs of entail as representatives of Larg's estate anent the possession,"[4] they decided to remove to their own property and went to Bargally on May 15th, 1691.

Bargally (I use throughout the spelling of the Ordnance map) is situated on the east bank of the Palnure Burn, a tributary of the river Cree. On three sides, north, west, and east, the ground rises rapidly, particularly on the east, forming the bare hills of Cairnsmore of Fleet, the highest point of which is marked 2331 feet. The banks of the stream are

steep, and the waters rapid, and except where the house is built, within thirty yards of the highest part of the bank at Bargally, there is little available land for cultivation. From a botanist's point of view or the agriculturist's the place is a very favourable one, as it is well sheltered from the north and east and well open to the south.

In a privately printed book on the Rogers family, my cousin, Julian Rogers, thus describes the character of Andrew Heron :—[11] "He was a born botanist and a man of refined and elegant tastes, but, unfortunately for his future happiness, he had all the weaknesses which generally accompany the æsthetic temperament. He was the creature of his impulses, unrestrained by consideration of prudence in the indulgence of his hobbies, and totally devoid of capacity for the management of his own affairs, though ready enough to advise others. Add to this a singular guilelessness of disposition and a mind easily dominated by a will stronger than his own, and what follows will not be difficult to understand." It must be confessed that he showed little of the business acumen which characterised many of his ancestors or even near relations. He had expectations from his father, but even before his father's death he began planting his garden and building his new house on a scale far beyond his means, with the not unnatural result that in the latter part of his life he was in sore straits for money and involved himself in difficulties which resulted in litigation after his death and the impoverishment of his branch of the family.

Andrew Heron moved into Bargally, as we have seen, on May 15th, 1691, but the then existing house being small and inconvenient, he only remained there for the summer. Records[4] say he built the centre portion of the present house in 1695 (or 1694), the architect being a "Mr Hawkins, an Englishman;" but before even he had made a decent house for his wife and children he began his garden, for in 1693 he built the "side of the close where the stables are," and in 1695 the "great orchard dyke" or wall garden, as well as the entry gate. In the same year he began to stock his garden "with an excellent collection of fruit," doubtless the first step of his horticultural enterprise. His father dying in this

Beech tree at Bargally (1916).
See p. 223.

year, he inherited a farm about two miles further up the burn called Dalaish Cairns, and he also rented for thirteen years some land from the Barony of Bardrockwood,[15] " which was very convenient, it adjoining his estate." In 1696 he built the pigeon house.[4] All these still exist, as well as the sundial in the wall garden, on which is engraved the initials " A. H."

The reputation of Andrew Heron as a gardener rests on the statements made in three books on horticulture, viz., Loudon's *Arboretum et Fructicetum Brittanicum*,[1] published in 1844; Robert Maxwell's *Practical Husbandry*,[8] 1757; and Bradley's *Treatise on Husbandry*,[9] 1726.

Loudon states that Andrew planted all the lower part of the valley in which Bargally stands. " The splendid quercus ilex and noble beeches which you saw in 1831 are but the miserable relics of the magnificent forest which once rose between Bargally house and the river Palnure."[16] When he wrote the garden and orchard had been a grass field for forty years, " but some variegated hollies, now large trees, still remain to mark the different divisions of the garden." He also quotes a local resident who purchased a trunk of silver fir, which, after being cut up, yielded boards 26 inches wide, as evidence of the size that the trees had grown to. Lady Heron-Maxwell, writing to Loudon, stated that Andrew after twenty-one years' work had " well stocked (the garden) with all kinds of fine trees and rare fruits, both stone and core; some portion stocked with fine flowers, and he had the greenhouse stocked with oranges and lemons, pomegranates, passion flowers, citron trees, oleanders, myrtles, and many others." That Andrew Heron's fame was far spread is shown by a tale given of a visit of his to London. He " very much astonished the principal gardener, to whom he was a stranger, with the botanical knowledge he displayed. The gardener having shown him an exotic, which he felt confident the visitor had never seen, he exclaimed, on Mr Heron naming it:—' Then, sir, you must be either the devil or Andrew Heron of Bargally.' "

Of the garden little more can be said, for no family record makes the smallest reference to it; it might as well have not

existed for all it tells.[18] But the cupidity of Andrew Heron's nephew, who now reigned at Kirrouchtree, had been excited by the "Paradise" as it was called, and his uncle's lack of business methods and extravagance in planting afforded Patrick an opportunity of getting hold of this Naboth's vineyard.

Patrick Heron of Kirrouchtree, Andrew's brother, fell sick and died in February, 1695,[5] and Patrick II. reigned in his stead. Andrew's extravagance on his house and garden had resulted in his getting into low water financially, and to relieve his pressing needs he in an evil moment applied to his nephew for a loan of money.[12] It would take too long to give an account of the numerous deeds and mortgages made by the astute Patrick II. to obtain good security, and perhaps to get hold of the estate of his uncle. It will suffice to say that each one was done "without the intervention of any man of business" to indicate that they may have been not all above board, but each successive one screwed down the wretched Andrew further, and made the ultimate possession of the estate more certain for Patrick. Andrew had quarrelled with his eldest son, as will be told later, and for certain reasons he left Bargally to his third son in return for a promise of a sum of money to be advanced to meet the importunities of the nephew. This son was a Captain Patrick Heron, and, in the event of his death, the estate of Bargally was to go to his second son, another Andrew, whom we will know as Dr Andrew Heron. Though Captain Patrick entered into an obligation to pay his father's debt, he appears to have entirely ignored his promise, hardly a high principled action, however much he may have distrusted his cousin's honesty.

So matters stood till 1740, when poor Andrew died, no doubt worried to death by the troubles he had caused by his own folly. He was buried in the grounds, about twenty yards from the house, on the south-east side, in a stone tomb ornamented with a small representation of a skull.[17] The tomb is now surrounded by a shrubbery, and much overgrown with creepers. On this tomb is engraved his own initials and those of his second wife, Elizabeth Dunbar.

Before narrating the story of the great litigation over the

Bargally estate, a few words must be given about Andrew's wives and family. As told previously, he married as a young man Mary Graham of Floriston. She died in 1706, and he "finding an inconvenience in keeping house in a state of widowhood (!) married in April, 1708, Elizabeth Dunbar, the relict of John M'Kie, his cousin german."[4] M'Kerlie says "Margaret, relict of John M'Kie of Larg."[2] In a certain legal document Andrew Heron speaks of "Elizabeth Dunbar, my spouse," and "E. D." are the initials on the tomb referred to above. M'Kerlie was wrong, for the lady was Elizabeth, daughter of John Dunbar of Machermore, and widow of John M'Kie of Palgown. Her son by her first marriage was grandfather of James M'Kie, who eventually purchased Bargally.

By his first wife Andrew had seven children. The eldest, Andrew, is described as "inattentive and full of pleasure" and very proficient in music.[4] He quarrelled with his father over his marriage with Elizabeth, daughter of Sir William Maxwell, first Baronet of Monreith, and died in Ireland from an accidental overdose of opium given in jest in 1730, aged 46.[4] The second son, William, died at Bargally in 1708, aged 24. He is described as a "considerable merchant in London," which is improbable at his age. Patrick, the third son, obtained an Ensigncy in Lord Mark Kerr's regiment at Portsmouth,[6] and there he met and married Ann Vining,[4] a daughter of John Vining, a rich merchant of that town. After living at Lymington for some years, he went to Canada as a Captain.[7] I have in my possession many papers relating to him; perhaps, in these times of war, the most interesting are those which tell of his defence against the French of a block-house at Canceau in Nova Scotia, his capitulation in 1744, and his release in the following year.[6] His wife having died, he married a second time, but she, when returning to England a widow, was drowned in a shipwreck.[4] The date of his departure to Canada is unknown, but it was probably about 1730, but before he left he had many sons and daughters, only two of whom need be mentioned as taking part in the history of the Bargally estate. His eldest son (born at Vicar's Hill, Lymington, Hants, in 1713) was called after his grandfather,

John Vining, and went into business with his cousin, John Vining Reade, in Portsmouth.[7] Andrew Heron in the disposition of his property passed over this grandchild, as he, John V. Heron, was amply provided for by his maternal grandfather, the rich old merchant of Portsmouth. The second son of the Captain was Dr Andrew Heron, "a physician of London." It was to this grandson that the Bargally estate was to come should Captain P. Heron predecease his father.

At the time of Andrew Heron's death the situation was as follows:—His eldest son, with whom he had quarrelled, had died, leaving an only daughter. His second son was also dead; while the third was with his regiment in Canada. His wife also was dead. What had become of his other children does not now concern us in telling the story of the great litigation. All persons therefore who knew, or might have known, anything about Andrew Heron's money difficulties and the loans from his nephew were either dead or far removed. This gave the astute Patrick II. of Kirrouchtree the opportunity he had so long looked and patiently waited for. Without more to do he took over to his own use Bargally and his uncle's effects, and remained in undisputed possession for twelve years.[3] No doubt after such a lengthy period of time he flattered himself that no trouble was likely to arise from his cousin's sons, who lived in Portsmouth or London. But there appears to have been a lurking suspicion in the mind of John Vining Heron that things were not quite straight, and at the subsequent trial he stated that he recalled a letter of his father's, Captain Patrick Heron, asking him to look after the estate when his grandfather died, "for he would find it worth his while." Why he waited twelve years to do that he did not explain, nor does it seem very probable that the Captain ever wrote in this strain, as he must have known that Andrew of Bargally had expressly left John Vining out of his will. As heir at law, John V. Heron had come into possession of certain papers after his father's death about 1748, and thus discovered at least some of the transactions between his grandfather and his cousin at Kirrouchtree. This appears to have been enough for him, and he commenced an action against his cousin of Kirrouchtree to recover Bargally

and the personal estate of his grandfather, which Patrick of Kirrouchtree had appropriated to his own use. The proceedings in the Court of Session took some years before a decision was arrived at, but in the end John Vining Heron succeeded in his action, his preferential title being declared and an account ordered to be taken of Mr Heron's debt, setting off against it the receipts for rents and the sale of timber and otherwise.

Thus Bargally passed from the owners of Kirrouchtree back again to the descendants of Andrew Heron, but even this was not allowed to be the end of the troubles that seemed to beset the place.

Though John Vining Heron had got the estate, it will be seen from what has gone before that, legally, he had as little right to it as his cousin Patrick, for Andrew had left it to the second son of the Captain. Dr Andrew Heron, the person to whom it legally belonged, appears to have been quite ignorant of all that was going on behind the scenes, and accepted the fact that his brother was the lawful owner. But after some time certain rumours reached him, arousing a suspicion that material facts were being kept back, and so sure did he feel of his ground that he began an action against his brother. John pleaded that he was not in possession of any document to show that his brother had been nominated heir, but "from circumstances" believed that his grandfather intended to settle the estate on his younger brother in return for the money that their father had promised to advance, but as this had never been done a certain "tailzie" of 1715 stood good, which supported his claim to the estate. John, on being pressed as to what the "circumstances" were, refused to "discover any suggestion to his prejudice," rather a damaging admission. Dr Andrew, after a diligent search, discovered a disposition of 1728, which, the judges decided, established his right to Bargally, and a decision was given in his favour in 1764. His brother John, who had now joined forces with his cousin of Kirrouchtree to resist his brother's claim (perhaps in itself a transaction open to criticism), appealed, and got the decision reversed in 1766, only

again for it to be given in Dr Andrew's favour by the House of Lords in 1770.

Before the actions were over both Patrick I. and his son Patrick II. of Kirrouchtree were dead, and the whole cost of the litigation as well as the repayments of the rents and revenues of Bargally fell on Patrick III., who now held sway at the ancient home.

Dr Andrew Heron took up his residence at Bargally, but after twelve years he tired of it and sold it to Mr William Hanney in 1783, and went to live in Edinburgh, where he died two years later. The new owner says Loudon was "scarce of cash," and cut down in 1791 the wood of Bargally, "including many of the fine trees that had been introduced and planted by Andrew Heron." Thus ended the glories of Bargally and its renowned garden.[18]

Later on Hanney sold the place to James M'Kie of Polgown, in the hands of whose descendants it still remains.

It would be interesting if there existed even a letter, still more so a picture, of Andrew Heron. If there is such I do not know of it; I have never seen his handwriting, and can form no fancy of his appearance. Of a person who was so well known in his time there is singularly little gossip, though there is one tale in Scott's *Guy Mannering* in which the hero is indubitably Andrew Heron. In the "additional notes" to that novel the prototype of Meg Merrilies is said to have been Flora Marshall, one of the seventeen wives that Willie married. This Willie Marshall, more commonly known as the King of the Gipsies of the Western Lowlands, was in his youth little better than a highwayman, and in that capacity attacked "the Laird of Bargally." In the scuffle Willie lost his bonnet, and the Laird his purse. A respectable farmer coming along picked up the cap and put it on his head, but Bargally meeting him and recognising the cap had him arrested and charged with highway robbery. At the trial matters were going badly for the farmer, when Willie pressed forward and placed the cap on his head, and said:—"Look at me, sir, and tell me, by the oath you have sworn, am I not the man who robbed you between Carsphairn and Dalmellington?" Bargally replied:—"By heaven! you are the very man,"

which seems so to have shaken the evidence that the farmer was acquitted. While Willie was thus laudibly engaged in getting an innocent man off, his wife stole the hood off the judge's gown, for which little offence she was deported to New England, from whence she never returned.

I cannot end this brief account of my ancestor without a reference to the labours and indefatigable industry of my cousin, the late Julian Rogers, without whose researches the writing of this paper could never have been accomplished. For the last twenty years of his life he had made it his hobby to investigate all matters connected with our family, and particularly with the Herons. His discovery of the report of the lawsuit in the Library of Lincoln's Inn enabled him to complete that part of our ancestry, supported by the family documents, in the discovery of which I had had my modest share.

NOTES.

1 Loudon's *Arboretum et Fructicetum Brittanicum*. 1844.

2 M'Kerlie's *Landowners of Galloway*.

3 Lincoln's Inn Library, Heron *v.* Heron.

4 *MS.* lent by the late Mrs Gee, daughter of Captain Basil Heron, R.E.

5 *MS.* lent by Dr M'Kie of Newton-Stewart.

6 War Office records.

7 Numerous family Bibles.

8 Maxwell's *Practical Husbandman*. 1757.

9 Bradley's *Treatise on Husbandry and Gardening*. 1726.

10 Scott's *Guy Mannering*.

11 Julian Rogers, *A History of Our Family*. (Privately printed.)

12 Lewis' *Topographical History of Scotland*.

13 A part of Camlodane certainly belonged to the Herons, but there does not appear to be any evidence to show that Machermore also belonged to them. Prior to 1487, Thomas Heron, the first recorded member of the family, owned Camlodane-Maklurg as well as Kirrouchtrie (*R.M.S.*, 1424/1513-1702). Machermore, which must not be confounded with a four merkland of that name near Glenluce, belonging to the M'Kies, was owned by the family of M'Dowall in 1490, and probably earlier. There is nothing to show that Machermore ever formed part of Kirrouchtrie, as suggested by M'Kerlie.

[14] In 1682 the farms of Bargally and Dallaish Cairns, valued at £120, were owned by John Maxwell of Drumcoltran (see old Valuation Rolls). At what date they were sold by him is not clear, but they may have been bought from him by Patrick Heron on the occasion of Andrew's first marriage, and given him as a marriage portion. Dallaish is quite distinct from Dallaish Cairns. In 1682 the former belonged to Patrick Murdoch of Comlodane, and does not ever appear to have been owned by the Herons. The two farms lie on different sides of the Palnure Burn.

[15] The six merklands of Bardrockwood, Bardrockhead, or Bardrocht (the earliest form), first figure in record as in possession of the Mure family. Alexander Mure of Bardrocht is referred to in 1471 (*Acta. Dom. Aud.*, 19), and was in conflict with M'Clellane of Bomby in 1476 concerning the lands of Bardroched (*ibid.*, 50). Mure was dead by 1492, in May of which year his daughter and heiress, Elizabeth, sold to Bomby this property as well as Glenturk, Carslae, etc. (*R.M.S.*, ii., 2138). Eight years later Glenturk, etc., was sold by Bomby to Robert, son of John, Lord Carlisle, and was then described as in the Lordship of Bardrochwood (*ibid.*, 2799). But when that Lordship was created is not known. For over 100 years Bardrochwood belonged to the M'Clellanes of Bomby, though in 1511 William M'Clellane obtained license to sell it (*R.S.S.*, i., 2308). But in 1622 Sir Robert M'Clellane, being in financial difficulties, resigned it in favour of David Arnott of Chapell, under reversion of 3000 merks (*R.M.S.*, 1620/33, 639). Bomby's difficulties soon got worse. In 1624 the lands of Bomby, Bardrockwood, and others were apprised for debt by John, heir of Colonel Sir Robert Henryson of Tunygask (*ibid.*, 660), and in 1635 Bardrockwood was again apprised by David Ramsay of Torbene (*R.M.S.*, 1634/51, 301). By 1642 Henryson's apprisement was got rid of, and Bardrockwood incorporated in the newly-erected Barony of Kirkcudbright (*ibid.*, 1049). The following year Thomas, Lord Kirkcudbright, finally parted with it in favour of Colonel William Stewart, son of Alexander Stewart of Clarie (*ibid.*, 1499). In 1698 it passed to Colonel William Maxwell on his marriage to Nicolas Stewart, great-granddaughter of the Colonel.

[16] Loudon must be wrong. The house stands quite close to the Palnure Burn, and there is no room for a forest there. He must refer to lower down the valley. Some of the beeches referred to are still standing, and a photograph of one of the finest is reproduced in the text.

[17] At the east end of the tomb on the slab that closes the entrance is engraved the skull with the inscription:—"This tomb was erected A.D. 1729 by Andrew Heron of Bargaly, and repaired by John M'Kie of Bargaly, 1829." At the west end is the brief inscription:—"We dy hopeing and our ashes receive life—1730."

[18] If the glories of the Bargally of Andrew Heron have passed

away with the cutting of the timber which he planted, a new Bargally has at least taken its place. The house has in recent times been enlarged and a new approach made to it. The garden, one of the features of the property, speaks for itself, and is an object of great beauty and interest. Most of the woods in the vicinity are copse-wood, cut over at intervals of fifteen years or so, but fine trees are always left standing. Mr G. M. Stewart, in October, 1917, made the following measurements of trees at Bargally, giving the circumference three feet above the ground:—

2 Beeches—16 ft. 8 in. and 14 ft. 6 in.
2 Spanish Chestnuts—12 ft. 10 in. and 12 ft. 9 in.
2 Horse Chestnuts—12 ft. 10 in. and 10 ft. 9 in.
2 Auraucarias Imbricata—7 ft. 7 in. and 7 ft.
1 Pinus Insignis—13 ft 2 in.
1 Wellingtonia—13 ft. 6 in.

With the exception of the beeches, the above were probably all planted after Andrew Heron's time.

22nd March, 1918.

Chairman—Mr T. A. HALLIDAY, V.P.

Weather and Other Notes taken at Jardington during 1917.

By J. RUTHERFORD.

JANUARY.

The mild weather of the closing days of 1916 was continued during the first three days of the New Year, the daily mean temperature being 51.7 deg. From the 3rd there was continued mild frost till the end of the month. The daily mean temperature was 33.92 deg., which was about 5.5 deg. lower than the mean of the preceding six years. It is noteworthy that the low temperature was not the result of any intensely cold period, but of a continued moderate cold. There was a slight fall of snow on four days. There were 16 days on which no rain fell, as compared with four in January, 1916. Total rainfall, 1.58 in.; that of January, 1916, being 5.09. The rainfall of this month was one of the three lowest records for January during the last 23 years. The wind was principally from an easterly direction, which is

very unusual for this month, and was piercingly cold on a number of days.

FEBRUARY.

The mild frost experienced through January was continued till the 17th. The return of moister weather on the 17th brought to an end an unusual protracted winter drought. The usual rainfall from January 11th till February 17th is about 4 inches. This year during that period it was about one-twentieth that amount. From the 17th until the end mild genial weather continued. The wind was principally from a northward or easterly direction. On many days it was so calm that it was difficult to determine its direction.

Snowdrop hanging its head on the 1st, being 20 days later than in 1916. Heard the cheery song of the Water Ousel on the 9th, and that of the Song Thrush on the 26th, which was 24 days later than 1916.

MARCH.

Wintry weather prevailed during the month, with the exception of the first three days and two or three near the end, which were mild and more spring-like. During the middle portion of the month the fields were very grey and barren, without a trace of green. There were bitter cold east winds from the 4th till the 10th. There was a slight fall of snow on five days, and frost on 26.

Hazel came into bloom on the 1st, 32 days later than in 1916; Coltsfoot on the 15th, 23 days later; Wood Anemone on the 30th, 7 days later. First heard the nesting note of the Peewit on the 16th, was about the same time as in 1916.

The daily mean temperature was 38.01 deg., being the lowest March record during the last seven years.

APRIL.

April came in with a cold north-east wind, a wintry morning, with about three inches of snow on the ground. Cold, barren winds prevailed until the 16th. From this until the end the weather was milder, but of a mixed type of spring and winter days. There were no genial April showers, and

little vegetable growth. Snow fell on six days. On the early morning of the 11th there was a fall of twelve inches here, which was the heaviest fall of the year, and remarkably heavy for April.

Sowing oats, which generally begins in March, was not commenced until well into the month. The severe weather of March and April caused a heavy death rate amongst ewes and lambs.

Flowers came into bloom about 14 days later than in 1916—Lesser Celandine on the 18th; Dandelion, 19th; Lesser Periwinkle, 20th; Primrose and Sweet Violet, on the 21st; Flowering Currant, 28th; Dog Violet, on 29th.

First Swallow seen on the 26th.

Daily mean temperature, 41.56 deg., which is about five degrees below the mean of the last seven years.

May.

A fine sunny morning, with abundance of May dew and birds in song, introduced the merry month. There was no rain from the 17th of April till the 11th of May; the land was very dry, and very little growth. From this date sufficient refreshing rain fell, when the fields immediately assumed their wonted beauty and vigorous growth. By the end of the month there was plenty of grass, and every prospect of a good crop of hay and oats. There was little frost. Temperature was normal.

Jargonelle Pear came into bloom on the 1st; Blackthorn, the 6th; Cuckoo Flower, 12th; Blenheim Apple, 13th; Chestnut, 22nd; Garden Strawberry, 22nd; Speedwell, 25th; Hawthorn, 29th; Ox-eye, 31st. Saw the first Small White Butterfly on the 2nd. First heard the Cuckoo on the 2nd.

June.

This was a fine warm, sunny month, there being sunshine at 9 a.m. on 20 days. On the 11th and 12th the temperature in the shade reached 80 deg. There was no frost, and all crops did well, except turnips on some soils, where a good deal of sowing over had to be done. On

other soils they came away rapidly, and were soon ready for the hoe.

Daily mean temperature was about normal.

Yellow-rattle came into bloom on the 5th; Purple Orchis, 7th; large Valerian, 8th; Dog Rose, 17th; Hairbell, 30th. First worker Wasp seen on the 30th; very late.

JULY.

There was an absolute drought from the 26th of June until the 15th of this month, when just a trace of rain fell on three days, and the progress of all crops was considerably checked in consequence. On the 18th 1.29 in. of rain fell This was followed by a fine genial warmth, and sufficient moisture to maintain a vigorous growth. Ryegrass and early meadow hay were secured in fine condition. First dish of ripe strawberries was gathered on the 1st. Corn ragging on the 5th. Knapweed came into bloom on the 17th. Meadow Brown Butterfly first seen on the 1st. Daily mean temperature normal.

AUGUST.

No rain fell from the 30th of July until the 8th of this month, and crops were beginning to suffer. From this date rain fell on most days until the end. This had a most benecial effect on crops and pastures, but made harvest work a tedious process. There was thunder, with heavy rains, on several days. Cutting oats began on the 20th. Butterflies plentiful; Wasps very scarce. The lowest reading of the barometer during the year occurred on the 28th, when it reached 28.95 inches. This is an unusually low summer record.

SEPTEMBER.

After the 12th the weather was very broken, and harvest work made slow progress. There was also a difficulty in getting labour; and men supplied from the Army were in many cases very unsatisfactory, many of whom had never worked in a harvest field before. Swallows were gathering into flocks preparing for their migratory journey about the 8th. The last swallow seen was on the 1st of October.

Rainfall, 3.51 inches, as compared with 1.76 in. in 1916. Temperature normal.

October.

Early winter weather came with this month. On the 6th Queensberry and other distant hills had a covering of snow. We had a light covering on the mornings of the 27th and 29th. During the whole month the weather was cold and wintry, unsettled and unseasonable, with heavy gales of wind and floods. On the 25th a number of trees in the neighbourhood were blown down, and roads blocked. On the evening of the 21st about half-an-hour after sunset there was rather a striking phenomenon: the whole of the sky had a greyish covering of cloud, which in a short time changed to a light purple. This abnormal colour, which continued for about five minutes, was reflected on the ground, when everything was tinted with red. Very stormy weather followed for several days. At the beginning of the month a considerable quantity of oats in the district was unsecured and a good deal remained in the fields at the end. Potato lifting was considerably hindered by bad weather. This crop turned out very satisfactory as to bulk, and almost free from disease.

The rainfall of the month, 6.35 inches, was exceeded on only five occasions during the last twenty-five years. The daily mean temperature was 5 deg. below normal.

Burns speaks of "chill November's surly blast" making "fields and forests bare," but the frosts and blasts of this October, to a great extent, denuded the woods of their beautiful autumn foliage.

November.

With the exception of a rather high wind on several days and a cold stormy snap from the 24th till the 27th, the weather of this month was very mild, and had a number of very fine autumn days. A wintry October is often followed by a mild November, and not infrequently a mild winter. The fields kept fresh till the end, and on most days cattle went out grazing for a few hours. The daily mean tem-

perature was 45.46 deg., which was the highest for November during the last seven years, and five degrees higher than October, which is most unusual. At this part of the year the temperature generally tends quickly downwards, and on an average October is five degrees warmer than November. Heard a Thrush trying his pipes on several mornings.

DECEMBER.

Mild, open weather continued throughout the month, with the exception of two cold wintry snaps—from the 11th till the 13th, and from the 15th until the 18th. There was a powdering of snow on three days, and only three days on which the barometer was under 30 inches. The daily mean temperature was slightly under normal.

Large sun-spots were much in evidence during the year.

There are problems in connection with the forces which influence the weather to a great extent, yet remain to be solved. Changes come so suddenly without any apparent reason, and most weather predictions beyond a day or two are seldom correct. A knowledge of the forces which influence the weather is essential to enable us to understand the effects which we daily witness. Such forces, I believe, are to a great extent external to our planet, and in some way intimately connected with variation in solar activity.

The notes in this paper, except where otherwise stated, refer to my immediate locality.

Meteorological Observations taken at Jardington, near Dumfries, in 1917.

Lat., 55° 4′ N. ; Long., 3° 36′ W. ; Elevation, about 50 feet above sea level.

	Self. R. Thermometers. In Screen, 4 Feet above Grass.										Barometer.		Rainfall.		
	Maximum.			Minimum.											
	Highest in the Month.	Lowest in the Month.	Daily Mean.	Highest in the Month.	Lowest in the Month.	Daily Mean.	Daily Mean Temperature of the Month.	Number of Days at or below 32 deg. in the shade.	Number of Days at or below 32 deg. on the grass.	Lowest Temperature on the Grass.	Highest.	Lowest.	Total Depth.	Greatest Fall in 24 Hours.	Number of Days with ·01 or more inches recorded.
	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Days.	Days.	Deg.	Inches.	Inches.	Inches.	Inches.	
Jan.	58	31	37·42	42	24	30·42	33·92	23	28	19	30·45	29·25	1·58	·52	15
Feb.	49	32	40·68	40	14	29·00	38·84	15	22	10	30·45	29·8	1·10	·27	11
Mar.	54	33	45·16	44	14	30·87	38·01	18	26	10	30·4	29 2	2·76	·63	17
April	65	36	49·50	47	15	33·63	41·56	13	18	14	30·6	29·2	2·76	1·00	14
May	79	51	63·20	57	27	43·87	53·53	2	3	23	30·5	29·85	3·53	·63	14
June	80	58	67·00	56	36	45·46	56·23	..	..	35	30·4	29 65	2·57	1·23	13
July	80	63	71·77	59	37	49·48	60·52	..	..	34	30·4	29·8	2·33	1·29	11
Aug.	82	59	67·38	58	40	52·42	59·90	..	..	39	30·35	29·85	5·91	·69	20
Sept.	70	56	63·07	56	37	48 36	55·71	..	..	36	30·1	29·65	3·51	·85	19
Oct.	62	42	49·32	51	27	35·84	42·58	12	16	26	30·2	29·2	6·35	·80	24
Nov.	58	42	51·23	52	28	39·7	45·46	4	10	28	30·45	29·5	4·07	·80	24
Dec.	51	33	42·01	40	19	29·90	35·95	19	26	17	30·4	29·8	2·60	·37	15
													39·07		197

39·07 in. of Rain is 0·35 in. below the Mean recorded here during the last 24 years.

Two Ornithological Notes,

By the EDITORS.

PLATYCERCUS EXIMIUS.

The appearance of a pair of Parrakeets, indigenous to Australia, flying at liberty on a Scottish moor is sufficiently uncommon to merit brief notice.

In August, 1913, these birds were observed by the tenant of Birset, parish of Mouswald, sitting on a moor gate. For a few days they frequented the vicinity of the farm, their bright plumage rendering them easily detectable. In an effort to capture them the birds became separated, one of them appearing the next day in Mouswald village. After several fruitless attempts, Mr Robert Dickson, the blacksmith there, captured it, and though it has twice managed to escape, it is still (August, 1917) in his possession. It is a fine healthy bird of the most brilliant colouring and good plumage. It imitates all sorts of whistles, by which means it was located when it escaped.

The other bird turned up in Rockhall woods, and was shot there by Mr Veitch, factor to the Hoddom estate. It was stuffed and placed by Mr Jardine Paterson in Brocklehirst, being happily saved from the recent fire in that mansion.

The birds had obviously escaped on to the moor, but the original owners have never been traced.

These parrakeets are called Rosehill parrakeets, from the place in New South Wales where they were first seen and now abound. They belong to the *genus platycercus*. A pair of stuffed specimens in poor condition and very drab colouring is to be seen at the Maxwelltown Observatory.

TURDUS MERULA.

Mrs Maitland Heriot reports that early in September, 1917, these appeared in the garden at Whitecroft, in the parish of Ruthwell, a white bird, which no one could at first recognise. It was very closely observed, and was identified as a white blackbird. Its principal habitat was the wild garden by the pond, where many birds gather to feed on rowan

berries, of which a number grow there. The bird was virtually all white, but had some dark feathers (they were hardly black) at the top of the head and low down on the neck. His beak was bright yellow, and altogether it had a very handsome and striking appearance. It appeared to be much more shy than most blackbirds, and seemed to know when it was under observation with field glasses, retiring out of sight into the wood. Food was regularly put down for it, on which it fed, but it did not appear to mate. It never seemed to move far from its habitat, but disappeared after three or four weeks. Such an occurrence deserves to be placed on record.

Five Strathclyde and Galloway Charters—Four concerning Cardew, and One the Westmorland Newbigging.

By the Rev. Frederick W. Ragg, M.A., F.R.Hist.S.

I.—Gospatrik's Charter.

This was shown to me first in 1902 by Mr R. H. Bailey of Lowther, whose care for ancient documents cannot be too highly praised, and was copied by me then, and the photograph which now appears in these *Transactions* was at that time taken by my urgent request; for recognising at once some of its difficulties and its value I felt a mere transcript insufficient. I could not then, however, publish. But after working amongst such Denton deeds as appear to remain at Lowther, and getting these, scattered and separated as they had long been, into some sort of arrangement, I have been able to recognise the charter as one of these deeds, the first of the Cardew series, and I now return to it.

Denton (*Accompt of Estates and Families in Cumberland*) tells us that Cardew was held in the male line from early times[1] till the last of these owners sold it to a chaplain whom he names Berrington, who transferred it to the Bishop of Carlisle. In the existing charters about this transfer to Bishop de Halton, I do not read the name as Berrington, but

[1] He mentions some personal names of these, Thomas, Stephen, and William; others Adam, Henry, and Aldusa—all de Carthew—occur in the Pipe Rolls of Henry III.

in one as Bermton and in another as Bermeton; and the chaplain in question seems to be the John de Bermton mentioned in the Registers of that Bishop, read by the lamented W. N. Thompson in his edition of those Registers as Bermton or Berinton,[2] a priest collated to Denton as rector in 1317, and thereafter accordingly not "capellanus." I had the same doubt which Thompson shows about the name, but the two forms set it at rest. It was evidently through the acquisition of Cardew that the charter came into Denton possession. John Denton's account of that acquisition agrees with the documents. Bermeton transferred it to Bishop de Halton, he says, to the use of John Burdon—that is as interim feoffee. John Burdon gave it to his son John Burdon and his heirs, and in default of these to John Denton and his wife Joan and the heirs of their bodies, and it remained in their possession till John Denton's time who wrote the "Accompt," about the last days of Queen Elizabeth.

Denton does not hint why the Bishop of Carlisle was thus chosen for interim feoffee, but we gain a special reason from Pipe Roll, Cumberland, of 14 Henry III. (1230-1[3]), and the Placita de quo Warranto. The barony or manor of Dalston under which Cardew was held had been in the immediate tenure of the Crown and was given by Henry III. to William Mauclerk, Bishop of Carlisle, to be held by the Bishops as superior lords. Bermton's transfer was simply granting for the time being the immediate as well as the seigniorial possession of Cardew to the superior lord, the Bishop, and the Bishop's re-grant of it could cause no question.

This grant of the overlordship to the Bishops of Carlisle is an important point in the history of a charter so full of puzzles as this which need much thought. The document I have aforetime stated shows clear signs of being a copy of a lost original made by one to whom the letters and the language were strange, and at first, and indeed till lately, I thought it made much later than a very close and critical examination

[2] *Episcopal Registers* of Bishop Halton, ii., pp. 30 and 145.

[3] See F. H. M. Parker's *Pipe Rolls of Cumberland and Westmorland.*

of it since has shown it now to be. Were it in the ordinary mediæval Latin there would have been little difficulty in settling its age, but some of the characteristics of different periods of writing seemed to show themselves in it. The photograph does not reveal all that scrutiny can find; only a very close and careful noting of every stroke of every letter in its pale writing, by the help of a lens, does.

From the photograph Dr Jenkinson, Librarian of the Cambridge University Library; Mr Chadwick; Mr Lapsley; Mr Craster, Sub-Librarian of the Bodleian; and Mr Plummer of Corpus Christi, Oxon.; who have most kindly examined it, agree in its being a copy made by one who was not accustomed to the language, and all of them who are palaeographists, in its being a thirteenth century copy. The reasons which occur to me now in concurrence with this judgment I will give later, when I come to the wording of the document. I wish first to turn to its substance, merely premising that there is sufficient reason to suppose it fairly representative of the lost original.

Gospatrik the grantor could only be the Gospatrik who, born about 1025, was from 1067 to 1072 Earl of Northumberland, and was then expelled and became Earl of Dunbar; one of whose sons, a second Gospatrik, succeeded him as Earl of Dunbar and died 16th August, 1139; another, Dolfin, was lord, in Carlisle, of Cumberland, and another, Waltheof, in Allerdale. Gospatrik mentions Earl Siward in the charter in such a way that we have to conclude that they had aforetime worked in conjunction or in the same continuous spirit. Siward was Earl of Deira from 1038 when Bernicia was in possession of Eadwulf, younger brother of Ealdred, father of Siward's wife. It was only through her descent that Siward, her husband, became Earl of Deira, and by the murder of Eadwulf that he became Earl of Bernicia and thus of all Northumberland. Gospatrik, son of an aunt of Siward's wife Ealdgyth and of Maldred, brother of Duncan King of Scots, had claim likewise on the female side to either Bernicia or Deira; but to Cumberland as a sub-kingdom in the old Strathclyde he could succeed, not as an heir of Northumberland, but as a relative of the King of the Scots, among whom a son during his father's life, or a younger scion it would seem, held

sway as far back as 972, when Malcolm "rex Cumbrorum" attests a charter of King Eadgar to Canterbury Cathedral.[4] Eadgar had mentioned in the Witenagemot of 970[5] having of late overcome "Scottas et Cumbras et Bryttas"—the two latter being Strathclyde—but these were handed over by him as they had been by Eadred, to the Scots' King to hold under him and to co-operate with him.

Siward having ruled all Northumbria from 1041 to 1055 died, and the earldom was given to Tostig, a brother of Harold of England. He was expelled by the Northumbrians in 1066, and a brother of the Earl of Mercia, Morkere,[6] elected, who submitted to William the Conqueror in 1067, but was soon deposed and replaced by Copsig, once a deputy of Tostig. He in turn soon fell, the earldom being apparently divided, for Oswulf II., one of the Northumbrian family became earl, north of Tyne in 1067, only to fall that year. Then Gospatrik made arrangements with William the Conqueror and obtained Northumberland, but was driven out in 1072; his claim to this earldom being through his mother, as already mentioned. After his expulsion in 1072, as probably also before 1067, only without the title of earl before this, his possession on his mother's side was Dunbar, the remnants of the Northumbrian earldom of Bernicia, in the portion which had been taken by Scotland. Siward's only connection with Cumbria (Cumberland) would be when he on behalf of Malcolm had defeated Macbeth, and he and his relative, the sub-ruler of Cumbria, could work together. This was in 1054-5. The conjunction of the two in granting rights mentioned in the charter is ap-

[4] Birch, *Cartul, Sax.*, iii., 448.

[5] Birch, *Cartul, Sax.*, iii., 557.

[6] As to the reasons for Morkere's election, I suspect that the Ethelgar of Ordericus Vitalis, iv., i., v., 14, was Ælfgar (father of Morkere and son of Leofric and Godiva of Mercia) and that Ælfgifu, Ælfgar's wife, was daughter of Uhtred and Ælfgifu, and so sister of Ealdgyth, wife of Maldred. This would account for the choice by Northumbrians of the Mercian Morkere and for Siward Barn's connection with Morkere at Ely and his being "tribunus Merciorum." Searle (*A.-S. Bishops*, etc., p. 446) gives Uhtred as father of Æthelgan (Ælfgar ?)—should it not be father-in-law? This connection would clear up a mystery.

parently alluded to as in the past, in days when Thore, father of Thorfynn, was a partaker. So at least I understand the charter—rights which Gospatrik continues and confirms to Thore's son.

Cumberland had a mixture of English and Danes (Anglo-Danes), Scandinavians from Norway, possibly, as well as from the Hebrides and Ireland, and Cymric peoples. A local language in such circumstances loses inflexions or has them confused; words of similar sound in the original separate tongues acquire even a changed meaning, and spelling may become, as it did in later days in England, a matter in which variety delighted, and vowel and consonantal sounds show change. These characteristics one might expect to find, and when they occur, together with misreadings or mistakes in a copy made by a scribe "who imitated what he imperfectly understood,"[7] the results needs careful analysis to make sure how far the substance is representative of the lost deed. But mistakes and misreadings in such a case are limited; for copies of deeds were only made in those times for necessary legal purposes, to ensure inheritance or safety in acquisition. It was not till long afterwards that they were made for antiquarian interest. A flaw in a document could prevent its being valid in court. And when a copy was made, sufficient attestation—as instances yet existing show—was also given to warrant that it was an exact copy.[8] Not that this eliminated all errors, but that it kept errors within bounds.

One result of my experience has been that the copy, not seldom retaining the shape of the original—I do not say the size—was made line by line to correspond with it. Emendations therefore to be probable are limited to misreadings of letters and conjectures of faded portions made by him who copied, and omissions of words which take up little space—or else of whole lines. For some difficulties there are sometimes, fortunately, aids in parallel phrases and formulas in other deeds.

[7] Mr Plummer's comment.

[8] This is only literally true in the cases of the smaller private possessions. Powerful bodies or corporations could contest where these could not.

The transfer of the barony of Dalston, under which Cardew was held, to the Bishops of Carlisle was an occasion when something corresponding to the King's "Inspeximus" of charters would take place, and when a copy to replace a deed might be granted by the new seigniorial owner, the original being deposited with him. For various reasons this might happen—the copy being allowed by him as equivalent to the original and attested by some accompanying form. If it should turn out then that the conclusions come to by the study of the writing are that it was of that period, it seems reasonable to conclude that this is its date.

The script of the original being one to which the scribe was unused, he has copied as nearly as he could most of the letters and made them in his usual way of forming letters, but some capitals of which he felt sure he has made in the fashion of the day; hence the mixture of shapes which range from the time of William I. to that of Henry III. The actual period is practically settled after close scrutiny to be the time when the small *a* was made with three strokes: the lower left curve, the longer right curve, and the joining of these at the top of the left curve by a third horizontal stroke, and when the tendency to indulge in thick horizontal strokes, bearing on the pen, was in vogue—as the top strokes of the letter *g* show, and when the tendency to keep the curve in the top stroke of the *T* remained, and the ordinary small *f* as written in Latin words was made with a long straight stroke begun with a small curve at the left of the top, and then a curve almost like a *c* added to the right at the top of the straight stroke. This process, though the shape is different, shows itself as that in which the *f's* in the charter were written; in some cases a straight horizontal stroke at the bottom of the *c* completes the work. All but two are thus formed. This was the time when also *y* had still a dot placed over it in the usual Latin script of charters. These characteristics come together in the early part of the reign of Henry III. And I think we may feel assured then that our copy is of the time when Henry III. transferred the Dalston barony to the Bishopric of Carlisle, *i.e.*, 14 Henry III. (1230-31).

In working up the whole matter afresh, I have returned

to my first conviction that the opening word is in the first and not the third person.[9] Following a suggestion of the editor of the *English Historical Review,* I had been induced, not willingly I admit, to give that up. But all the Anglo-Saxon charters which exist and begin in the third person, according to the continental form, have the third personal pronoun in the opening sentence, not the first, and the much greater number, from Cnut's days to those of William of Normandy, which begin with the name and have the first possessive pronoun in the same sentence, imply the name being in the first as equivalent to " I." One of these[10] has a Latin copy. The Anglo-Saxon runs : " Cnut Kinge cyde "—the Latin " Ego Cnut rex revelo," which fits the case exactly.

Then as to those to whom the greeting is addressed. These greetings in all kindred charters were not addressed to the occupants on a separate tenant's land; they were directed to all dwellers in the district or territory where the tenant's land was and were governed by the grantor. I know of no exception to this rule. And those concerned in this matter were they who dwelt in the part of the Strathclyde kingdom named Cumbria or Cumbraland—Strathclyde south of the Solway; Cumbrians, who had possesed it and were its chief population still, with whom the new settlers had become immixed. And I take it that the word " Cōmbres " is for " Cōmbraisc," or " Cōmbresc;" whether for " Commbresc," or " Coumbresc," I feel uncertain, but I think the latter has something to be said for it, because of the old pronunciation of *ou*—like it is now in " youth." This Anglo-Saxon form is well known; its use in the word *Englisc* has come down to us as " English," in the south. It became " Inglis " in Scotland. I take this as the adjective " Combresc " also for the additional reason that in the records of these Lake Counties the sign of the genitive is usually missed.[11] I should

[9] In this Mr Plummer agrees.

[10] Thorpe's *Diplomatorium Anglicum aevi Saxon,* pp. 332-3.

[11] Two of many instances are Emma Nycolwyff and Angneta Jacwif in a Cliburn rental of 1390. It does not follow that in the original Norse settlement this was so. The names they gave to places at the outset as possessions of persons crytallized in use. It

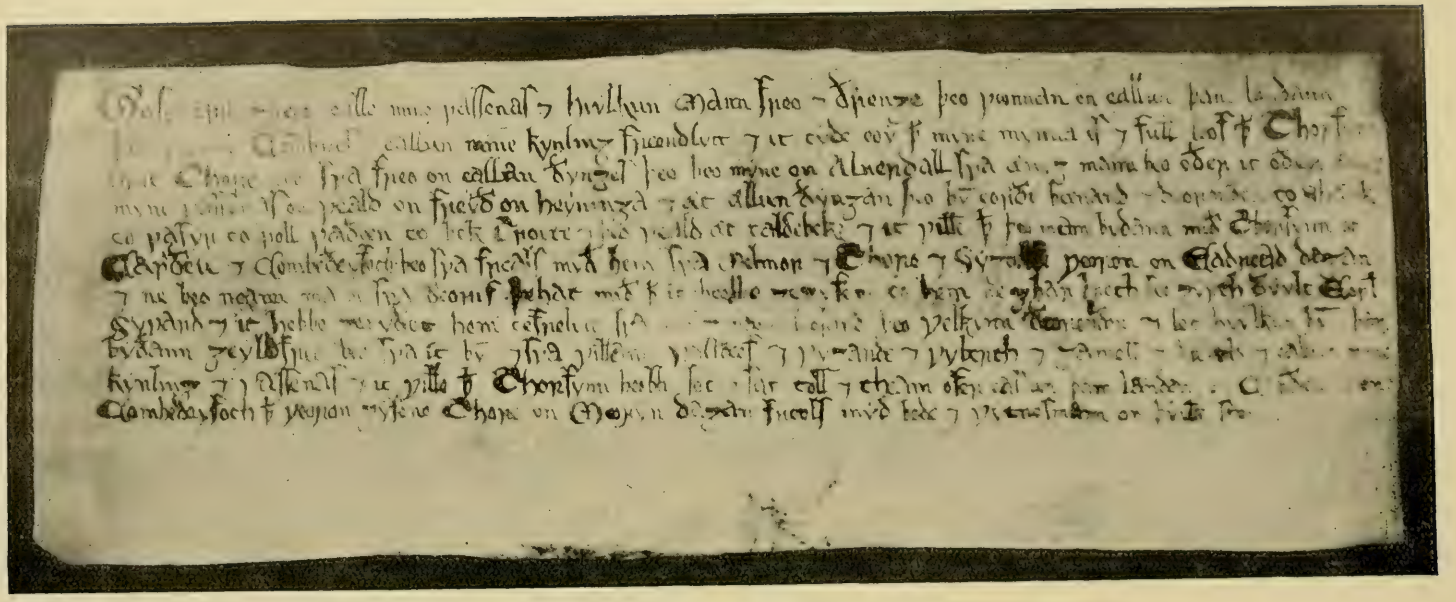
hardly have expected it so early but that the omission shows itself in this very charter twice "on Eadread dagan," and "on Moryn dagan."

The formula "on weald on freyd on heyninga" should correspond as well to later expressions in charters as to those of Anglo-Saxon times. In later days it appears in its simplest form as "in bosco" and "in plano," to include land of all descriptions, but with much addition sometimes, as in Huctred's charter which follows. One of Edward the Confessor's to St. Peter of York has "on wude and on felde, on mede and on watere." Another of the same King to St. Peter also[12] has "on wude and on felde be strande and be lande on straete and of straete and on eallan thingan" where the jingle shows that the formula was meant as an easy expression to include all classes. If therefore "on weald, on freyd and on heyninga" is to have the same comprehensiveness, which seems to be intended, "freyd" being the ancient word for wood, and "heyninga" being connected with Old Norse *hegna,* to hedge, from which comes "to hayn" and "hayne." an enclosure in MS. Lincoln A, i., 17 (Halliwell, *Dictionary of Archaic and Provincial Words*) and giving the suggestion "enclosures" for *heyninga;* there is left to correspond with "weald" the Scandinavian *völlr,* and this would include uplands, open mountain-sides and their wooded glens; an unusual meaning for Anglo-Saxon, but not very different from the later term "forest" in such districts as Martindale, for example.

Next as to the possibility of distinguishing between the peculiarities of the lost original and the alterations which the thirteenth century scribe may have made. He would keep to the sense so far as he understood it, for the reason already given—the validity of the document. Of the two letters which did not come into use in Latin words in charters and were going out of use in English at that time, he has made mistakes in one, not throughout, however—ƿ (*w*) : the other þ (*th*) had

was the after fusion of different tongues which caused this in terms in ordinary usage.

[12] Thorpe, *Dipl.*, 368; 414.



GOSPATRIK'S CHARTER.

Photo by Col. F. Haswell, M.D.

not so much gone out of use, as certain of the Lowther charters of later dates show; and indeed the Lay Subsidy Roll of 6 Edward III., 1332, for Westmorland, gives evidence that some of the local compilers of the lists were still using it, and that the official clerk who tabulated the whole for the Exchequer could not understand it. Hence Crakanþorp is turned into Crakarnyrop and Melkanþorpe into Melkanyroph; possibly by that time the top of the þ had been shortened somewhat so as to be nearer the shape of *y*, which in the next century it became as in "ye" and "yt" for *the* and *that*. At the beginnings of words in the charter the scribe has not mistaken the þ (*w*); it is only in the insides of some words and at the ends. In general, however, the changes likely to be made by the scribe beyond these would not affect the internal parts of the words so much as those inflections left which would give him some intimation of the connection and the sense, and these are very limited, as we shall see. It is evident, too, that the original must have been fairly legible when copied, or we should not have so much that gives consecutive sense.

I now turn to the transcription of the document and to what occur to me as the best suggestions I can now give of emendations, which I hope the parallels I quote will justify. After the transcription and emended text I can, I think, offer a text which would be nearer the normal Anglo-Saxon had it been written, as it was not, in that. The comparison will help towards interesting conclusions which I have come to about the dialect.

The parchment is 10 inches by $3\frac{3}{4}$ inches, not quite rectangular.

The Text as it stands:—

Gospatrik greot ealle mine wassenas & hyylkun mann freo & ðrenge þeo woonnan on eallun þam landann þeo weoron Cōmbres & eallun mine kynling freondlycc & ic cyðe eoy þ [æt] myne mynna is & full leof þ [æt] Thorfynn mac Thore beo swa freo on eallan ðynges þeo beo myne on Alnerdall swa ænyg mann beo oðer ic oðer ænyg myne wassenas on weald on freyð on heyninga & æt ællun ðyngan þeo bȳ eorðe bœnand & ðeoronðer

to Shauk to Wayfr to poll Waðoen to bek Troyte & þeo weald æt Caldebek. & ic wille þ[æt] þeo mann bydann mið Thorfynn æt Cardeu & Combeðeyfoch beo swa freals myð hem swa Melmor & Thore & Sygolf weoron on Eadread dagan & ne beo neann mann swa ðeorif [] ehat mið þ[æt] ic heobbe gegyfen to hem ne ghar brech seo gyrth ðyylc Eorl Syward & ic hebbe gecyðet hem cefrelycc swa ænyg mann leofand þeo welkynn ðeoronðer & loc hyylkun bȳ þar byðann geyldfreo beo swa ic bȳ & swa Willann Wallðeof & Wygande & Wyberth & Gamell & Kn̄yth & eallun mine kynling & wassenas & ic wille þ[æt] Thorfynn heobbe soc & sac toll and theam ofer eallun þam landan on Carðeu & on Combedeyfoch þ[æt] weoron gyfene Thore on Moryn dagan freols myð bode & wytnesmann on þyylk stow.

Text amended.

Gospatrik greot ealle mine wassenas & hwylcun mann freo & ðrenge þeo woonnan on eallun þam landann þeo weoron Com̄bres [c] & eallun mine kynling freondlycc, & ic cyðe eow þ[æt] myne mynna is & full leof þ[æt] Thorfynn mac Thore beo swa freo on eallan ðynges þeo beo myne on Alnerdall swa ænyg mann beo oðer ic oðer[13] ænyg myne wassenas on weald on freyð on heyninga & æt allun ðyngan þeo byn [on] eorðe bœnand & ðeoronðer to Shauk to Wafyr to poll Waðoen to bek Troyte & þeo weald æt Caldebek. & ic wille þæt þeo mann [þe] bydann mid Thorfynn æt Carðeu & Combeðeyfoch beo swa freals myð hem swa Melmor & Thore & Sygolf weoron on Eadread dagan & ne beo neann mann swa ðeor of þeaht mid þ[æt] ic heobbe gegyfen [þ[æt] he] to hem ne ghar brech seo gyrth ðyylc Eorl Syward & ic hebbe gecyðet hem swa fre(o)lycc swa ænyg man leofand þeo welkynn ðeoronðer & loc hwylkun byn [þe] þar bydann geyldfreo beo swa ic byn & swa Willann [&] Wallðeof & Wygande[14] & Wyberth & Gamell & Kunyth & eallun mine Kynling & wassenas & ic wille þæt Thorfynn heobbe soc & sac [&] toll & theam ofer eallun þam landan on Carðeu & on Combedeyfoch þ[æt]

[13] oðer for oðde appears in the Anglo-Saxon Chronicle in 1277. Plummer.

[14] Wigan comes as a personal name in charter V. Compare Weland, a possible variation of Willann.

weoron gyfene Thore on Moryn dagan freols myd bode & wytnesmann on þyylk stow.

Translation.

[1] Gospatrik greet all my servants and every man free and dreng that dwell on all those lands that were Cumbrian and all my kindred amicably and I make known to you that it is my wish and my full leave that Thorfynn macThore be as free in all things that are mine in Alnerdale as any man may be either I or any of my servants in regard to open land, forest and enclosed land and with all things that are there found on the earth or under as far as Shauk and Waver and Wampool and on the open land at Caldbeck. And I will that the men that remain with Thorfynn at Cardew and Cumdivock be as free together with him as Melmor[15] and Thore and Sygolf were in Eadred's days: and let no man be so bold of counsel in regard to what I have given that he in any way break the peace which Earl Siward and I have declared to him as freely as any man living beneath the heaven; and look you whoever there is that abides there let them be geld free as I am and as Willan and Waltheof and Wygande and Wyberth and Gamell and Kenneth and all my kindred and servants. And I will that Thorfinn have soc and sac, and toll and theam over all those lands at Cardew and at Cumdivock that were given to Thore in Moryn's days as a freedom with proclamation and by voucher at that place.

This emendation is what I imagine the text to be which the scribe of the thirteenth century copied. It has differences from normal Anglo-Saxon grammar and spelling, which, I think, must have belonged to the original, and are not at all likely to have been made by the scribe. Some of these I will take one by one as they occur. There is a tendency to the spelling *eo* for *æ* or *e*, as in "greot" for *græt* or *gret*, "weoron" for *wæron*, "leof" for *leaf*. "þeo" is for *se*, "deoronder" for *dærunder*, "heobbe" for *hebbe*; "mann" seems to occur for *man* and *men*. There is also the ending *un* for *um*, as in "hwylkun" for *hwylcum*, "eallun" for *eallum*;

15 Mælmor, Mr Plummer says, is Maelmuire, the tonsured slave of Mary, and is Goedelic; and Kenneth is Irish Cinaed.

and strangely enough in " hwylkun " (after the word " loc ") and in " eallun mine kynling " towards the end, in both of which cases the words ought to be nominative and not dative; and again in " ofer eallun þam landan." There is nothing to account for this repetition of the same characteristic but the possibility of its being a local usage. That these charters in Anglo-Saxon followed the local usage is quite clear to any one who will go through those which are given in Thorpe, and notice the differences which show themselves between those of different provinces granted by the same person. They must have been written by a local scribe in the dialect of the district.

The next thing noticeable is that the plural of the verbs ends in *an* and *ann*. This present tense indicative ending, for the more usual *-ad*, has been recognised as beginning in the East Midlands, among the Anglo-Danes, and hence it has been called the East Midland English. But this, after all, amounts to no more than that the earliest instances of its being adopted throughout occur in literature remaining of that district. There seem to be signs of its beginning in the Rushworth Gospels—rare enough it is true—and these were Northumbrian. As a theory of how it began, I venture to suggest that it was a replacement of the indicative form by the subjunctive, made by the Norse settlers, who found it easier not to be too much troubled by forms and moods in the language they found where they settled: they had plenty of grammatical forms of their own. But as it was Anglo-Dane it might easily have reached Cumberland. A characteristic, however, of that dialect when developed was the participle in *ende*, while the Northumbrian had *ande*, and this we have in " boenand " and leofand " in the charter. Now neither at the time of the original nor of the copy should we expect a Midland characteristic (embracing East Aglian) round Carlisle. The charter when vernacular, as I have said, was addressed to the local people in their tongue. And had the scribe of the thirteenth century altered this to modernise it to his days he would have made the plural of the verbs end in *s* or would have dropped the inflection, approximating it to the Norse. Therefore we are thrown back on to the idea that in

this he made no change, and accordingly that this dialect which was afterwards East Midland had begun in the North-West in Gospatrik's day.

The change from accusative to dative which the address gives, "Gospatrik greot mine wassenas & hyylkun mann— & eallun mine kynling" is not to be rejected for its irregularity. For an analogous case (Thorpe, p. 333) is that in a charter of Cnut, which runs: "Cnut cing . . . cyde minan biscopan & minum eorlum & ellan minan þegnan," where the middle is dative and the others accusatives; and though this occurs with another verb it is a parallel. "Wassenas," which comes in place of the usual "þegenas" of Anglo-Saxon charters, is Keltic; *gwasan* (Welsh), a page, an attendant, a retainer, formed from *gwas*, a servant, which was Breton as well as Welsh, and, in fact, forms the first syllable of Gospatrik's own name, Gwas-Patrik. The variation "freals" may be a misreading of the thirteenth century scribe; "bek" as we know is Norse (a word like it was Anglo-Saxon), transplanted to Normandy as well as England.

The sentence beginning "& ne beo neann mann swa deorif," with the blurred word following, is a difficult one for several reasons. In its midst comes the blurred letter, where after very close examination I think it is plain that the scribe began a word with *m*. The remains of a partly expunged letter fits this letter only. He had, I imagine, begun the word "mid," which next follows, by mistake; then he appears to have expunged and in doing this somewhat disturbed the word "freals" in the line above, and partly washed out the lower portions of the *a* and *l* and disarranged the lowest portion of the long *s*. The parchment shows this more clearly than the photograph. Then he continued his writing before the parchment was dry. Hence the ink spread. And one mistake often leads to another, though the very fact of this expunging, I take it, shows that he was awake to his work, and instead of writing "þeaht" (which in pure Anglo-Saxon should have had an inflection *e*), he wrote "þehat," and then went on with "mid" in its proper place. But there is another difficulty in the word preceding. An Anglo-Saxon adjective ending in *if* is, I think, unknown. The *f*, too, is

made differently from all the others save one. What occurs to me as likely is that the *i* in *if* represents a half-faded *o*, in *of*, and that the original text had "swa deor of þeaht(e)." There is an example in the Lindisfarne *St. Matthew* which was of course a Northumbrian version in v., 8, "claene of hearte" (pure in heart[16]). The usual word in the connection is "dyrsti(g)," as in Cnut's charter (Thorpe, 308). But William of Normandy (Thorpe, 439) has "& ne beo nan man swa deort þe hit undo þ[æt] ic hebbe gecydet Criste" (and let no man be so audacious that he undoes what I have declared as given to Christ) in a charter to Beverley. The adjective "deor" is more usual than "deort," and would fit here. As for its first letter being turned into an aspirated, this need not disconcert us; the aspirate was uncertain enough in the district and occurs in the very name Cardew, written also Carthew, both forms occurring about 1300 A.D.

In the remainder of the sentence it is plain that something has slipped out. "Swa deor" needs a "þ[æt]" to follow—"So audacious that he." This should come after "þeaht" or after "gegyfen." And that it was after "gegyfen" appears to me plain by the words "to hem" which follow. I have looked through very many pages of Anglo-Saxon to try and discover instances of "gifan" being followed by "to." The result of this search, which has included looking through many charters, has been to discover the following law:—*Gifan, forgifan* (grant), *sellan* (give), *unnan* (bequeath), and *geunnan* (concede) are followed by the dative of the persons to whom the gift is made—as is the case lower down in the charter "gyfene Thore," but when the grant is to a place for the sake of the people therein *to* or *into* follows, as it does in such an expression as "into the hands of." Thus "ic forgyfe . . . to þaere halgan stowe aet Scireburnan" (Thorpe, 124), I grant to the holy place at Shireburn. When it is to a church or a monastery it is also *into* that follows, as in Thorpe, pp. 191, 230, "see biscop gesealde þa hida into þaere cyricean" (gave the hides [land] to the church). But

[16] The alternative is that this *i* is parasitic, which Mr Plummer suggests, but I think less likely.

when the saint to whom the church or monastery was dedicated is named as the receiver, the dative returns, as in Thorpe, 368, "ic habbe gegyfen Criste & Sancte Petre into Westminster." It does this also when the community of the religious house is mentioned, as Thorpe, p. 477, "agefe þam hywum," and 579, "ic geann þ[æt] land þam hirede æt Cristes cyrcean"—the family or household.

These examples are of different ages and from different parts of the country, and there are plenty more, and in one and the same charter may be found at times instances of the different constructions. "To hem" then cannot belong to "gegyfen," but must belong to the words which succeed them. And this use of "to" is but an expansion of the way in which it is used in "to Shauk to Wafyr, to poll Wadoen & to bek Troyte," which mark the limits of the district within which and towards which the freedom was granted—its boundaries; while "þeo weald æt Caldebek" was within that region, and has the subtle distinction that therefore "to" is not affixed to it. Breaking the "grið to hem" (in regard to him) was breaking it in his direction—towards him, in regard to him, and is a kindred use of "to."

The two words by which I supply the omission after "gegyfen" are "þ[æt] he," and take up no space which would disturb the line, *i.e.*, they might very easily have been left out. "Ne ghar brech," as it is, could not have been written by one to whom Anglo-Saxon was his native tongue. The words evidently take the place of "nahwar" or "nahwaer brece" (subjunctive): the *ch* can hardly be a mistake for the indicative singular ending þ in this case. And this seems to me to suggest that the writer of the original deed was one who was of Keltic or mixed race, and only knew Anglo-Saxon (in a dialect) as an acquired tongue. There is nothing extraordinary in this in such a district.[17]

"Gyrth," spelt with *th* instead of ð or þ, is another anomaly. But *grið*, which it represents, was a Norse word, and it is noticeable that all the Norse and some Keltic words

[17] Though I quote from Thorpe only, I have consulted charters in Kemble's *Cod. Dipl.*, but the quotations from Thorpe seemed sufficient. All tell the same tale.

in the charter which have that combination *th* in them are not spelt with either þ or d, but have *th* separate letters—Thorfynn, for example, and Thore and Wyberth and Kunyth. Waldeof had become naturalised amongst the Anglo-Danes. This seems to show that the *th* had a different sound, probably harder and stronger, and the different spelling cannot have belonged to the thirteenth century copy, but to the original. "Gyrth" has also the transposition of the vowel and liquid which entered into several place-names in Westmorland, where we find Mebrun and Meburn, Clibron and Cliburn. "Seo gyrth dyylc" has other anomalies; "grid" in Anglo-Saxon is neuter and "seo" feminine; "þeo," the usual form for "þe" in this charter, would have done, but the confusion of genders as well as of cases is quite explainable. "Gecydet" is not the usual form, which is "gecyded," but it reminds one of the Scottish termination "it" for *ed*—*e.g.*, bobbit for bobbed—and, moreover, it is used in the charter of William of Normandy already quoted (Thorpe, 438). For "dyylc" (different from "þyylk" in the end of the charter) I can only suggest a fusion of þe (which) and ilca (the same, which same). *Ilk* still remains in Scotland, and the Lindisfarne St. Matthew xxvii., 10, has "þa ilco" for "those," which would be an antecedent, it is true, but "þe" and "þær" are used in Anglo-Saxon for antecedent and relative.

"Cefrelycc" is a difficulty which appears to show that the thirteenth century scribe nodded for a moment. The "ce" can only replace "swa," and can only have been possible after the practice was begun of sounding *c* soft before *e*.[18] This may have caused the slipping out of *c* at the end of "Combresc," and quite possibly the double *c* at the end of the adjectives ("freondlycc," etc., instead of *ce*) to keep the hard sound.

We must not be too particular in all instances in pouncing on Gospatrik's grammar. Here he means the adjective "freely" to apply to the receiver of the grant, but he uses it as if it applied to the giver. "Welkynn" answers to the "Anglo-Saxon "wolcnum," but this would be rightly dative

[18] This had begun in the tenth century. See the New English Dict. under C.

plural (the clouds or skies), and shows perhaps in the *e* a remnant of an old vowel-change of the plural; and "þeo" must be the indeclinable "þe," not a feminine demonstrative; "deoronder" for "dærunder" again need excite no surprise.

The next sentence is characteristically Anglo-Saxon, except for the "hwylc" having the termination *-un*, which could only be used in a tongue imperfectly acquired. A parallel to the phrase is in a charter of Eadward the Confessor, Thorpe, 391, "and loc hwilc bisceop darofer byd þat hit beo him under þeod" (and look each bishop that is over it that he have it remain subject to him).

"Byn þar" is so extraordinary that something must have been omitted, and the easiest correction and the most natural is the insertion of the relative "þe" (who, which), which also would occupy the space apparently left, easily, and allows "bȳ," *i.e.*, *byn*, as in the preceding instances in the charter, to be a part of the verb *to be* all through: *i.e.*, "byn" for *beon*, and sets "bydann" right.

"Willann" I can take most easily for a personal name and not the verb. My reasons are that Willan(n) is known to have existed as a family name from at least the fourteenth century to the present day in Westmorland, and there is nothing in the earliest records wherein the name occurs to suggest that it was then new; and that the "swa" fits better thus to the general sense.[19] One has to remember that the greeting is to his "kynling & wassenas," and it is somewhat awkward to be telling them that they joined him in willing what he alone had the right to grant. The consent of the eldest son or heir

[19] Besides which, to have the dative *eallun* playing the part of nominative, even in this charter with its strange *hyylkun*, would be too extraordinary. The name Willan[n], moreover, occurs as a surname in Court Rolls of Mauds Meaburn, in the earliest that I have seen [of 1340] as Welane, in 1412 and in 1473 as Willane. It may be a variant of Weland. It should be remembered that Mauds Meaburn was the possession of Maud de Morville, whose husband's family, Veteripont, as well as her own father's, had much connexion with Cumberland. Willan occurs as a surname in Cartmel in 1583, and in the Yorkshire border of Westmorland in 1659; also in the Kendal *Boke off Recorde* from 1575.

was often expressed, but here neither Gospatrik, who succeeded to his earldom of Dunbar, nor Dolfin, who succeeded to the lordship of Carlisle, is mentioned. Were witnesses intended thus it would be an isolated example in a charter which is of the type of the usual Anglo-Saxon charters of the eleventh century. " Swa " expresses the amount of freedom granted, as enjoyed by himself and those he mentions.

" Myd bode and wytnesmann "—by proclamation and the vouching of the official who attested the overlord's will. This very word *witenesman* is used in Final Concords, 40 Henry III., Westmorland, for this kind of official appointed by the overlord for court baron, and fed at the expense of the under-tenant when on service in his locality.

" þyylk stoy " is for *þyylk stow* (*i.e.*, *stoþ*), and though it is practically an antecedent to which a relative might follow, þyylk must have had the same origin as " ðyylc " above, possibly with a different sound in the first letter. As a word it remained till Chaucer's days. In both these cases the *yy* cannot be an error for *wy*.

One practical conclusion from the charter is a fresh colour given to the *Distributio Cumberlandie* (Prescott, *Wetherhal*, 384). We learn that though Dolfin may have been expelled and Ranulf Meschin have been put into his place, Ranulf's gift of Allerdale to Waltheoff was only a reinstatement or a confirmation of what he must have held under Dolfin, and no new first grant. And all through the *Distributio* we may read something the like behind.

Attempt at producing the charter in more normal form.

Gospatrik gret ealle mine wassenas & hwilc mann freo & ðrenge þe wunað on eallum þam landum þe waeron Combresc & ealle mine kynling freondlyce & ic cyðe eow þ [æt] min unna is & full leaf þ [æt] Thorfynn mac Thore beo swa freo on eallan þinges þe beoþ mine on Alnerdall swa ænig mann beo odde ic oðde ænyg mine wassenas on weald on freyð on heyninga & æt eallum þingum þe beoþ on eorþe boenende & ðærunder, to Shauk to Wafyr to poll Wadoen to bek Troyte & þam wealde æt Caldebek & ic wille þ [æt] þa menn þe bidað mid Thorfyna æt Cardeu & Combedeyfoch beon swa freols myð him wns

Charter of Huctred, Son of Fergus.

Mælmor & Thore & Sigolf waeron on Eadreades dagum, & ne beo nan mann swa dyrstig mid þ[æt] ic hæbbe gegyfen þ[æt] he nahwær brece þæt grid þe Eorl Syward & ic habbad gecyðed him swa freolyce swa ænyg manne under wolcnum, & loc hwilc beon þe þar bidad geyldfreo beo swa ic beo & swa Willann & Walldeof & Wygande & Wyberth & Gamell & Kunyth & ealle mine kynling & wassenas, & ic wille þ[æt] Thorfyn hæbbe socna & sac tol & team ofer eallum þam landum on Cardeu & on Combedeyfoch þ[æt] wæron gyfene Thore on Morynes dagum freols myd bode & wytnesmann on þa ylcan stowe.

II.—Charter of Huctred (Uctred), Son of Fergus, *to* Richard, Son of Troite; Between 1161 and 1174, Probably about 1170.

Huctredus filius Fergusi omnibus hominibus suis et amicis, clericis et laicis, Francis et Anglicis et Galguensibus tam futuris quam presentibus salutem. Sciatis me dedisse et concessisse et hac mea carta confirmasse, concessu Rodlandi filii mei et heredis Ricardo filio Tructe et heredibus suis totam terram de Lochenelo cum rectis divisis suis quibus unquam aliquis eam habuit et tenuit melius et plenius et plenarius, ad tenendum de me et de heredibus meis pro servicio unius militis in feudo et hereditate sibi et heredibus suis et quam diu ego reddam chaan del cro et de defense, ioan dabit mihi per annum pro libero servicio suo octo libras argenti, quatuor ad pentecosten et quatuor ad festum Sancti Martini, et per hoc liber et quietus erit ab omni servicio et consuetudine apud regem Scotie et apud me et heredes meos; et cum liber et quietus fuero del chaan, libere et

Huctred son of Fergus to all his men and friends clerical and lay, French and English and Galwegian, as well those to come as those now living, health. Know ye that I have given and granted and by this my charter have confirmed, by consent of Roland my son and heir, to Richard son of Troite and his heirs the whole land of Lochenelo, with (in) its rightful bounds in which any one at any time had and held it to full and complete advantage. To him and his heirs to hold of me and my heirs in fee and heredity for the service of one knight. And so long as I (have to) render the payment for prosecution of crime (bloodshed) and defence he shall give me yearly for his free service eight pounds of silver, four at Pentecost and four at Martinmas, and by this he shall be free and quit of all service and customary dues with the King of Scotland and with me and my heirs. And when I shall be

quiete teneat terram predictam per servicium unius militis. Quare volo et firmiter precipio ut predictam terram habeat et teneat cum omnibus pertinentiis et libertatibus eidem terre pertinentibus, libere et quiete in bosco et in plano in monasteriis in molendinis in aquis in stagnis in paschuis in pannagiis in sallinis in harenis in piscchariis in viis in semitis in venatibus omnium bestiarum in portubus in haeribus ancipitrum et omnium aliarum avium et in omnibus libertatibus et proficuis eedem terre pertinentibus. His testibus. Christiano episcopo Roberto archidiacono suo Gilleberto capellano Johanne nepote suo Thoma clerico de Torpenneu. Roberto clerico vicecomitis. Roberto filio Tructe. Bernardo Flandrensi Willo. et Nicholao nepotibus suis Ada nepote Roberti filii Tructe, Roberto filio Sungeve, Radulpho clerico de Carliol, David filio Teri. Normanno obside, Nicholao filio David Agustino fratre suo. Hivone de Stoches. Willo. filio Renboldi Herberto filio Hugonis maraschaldi, Willo de Cantelu[p], Andrea de Dunfrees Henrico filio Hodardi. Willo. clerico de Louchamaban. Simone fratre Ricardi Marchaldi, Gille Catphara, Gilleberto filio suo Gillemore Albanac, Gille Cohel. Macherne cum multis aliis.

freed and quit from the payment he shall hold freely and quietly the aforesaid land by the service of one knight. Wherefore I will and firmly order that he shall have and hold the aforesaid land with all the belongings and liberties pertaining to the same land, in undisturbed freehold: in woodland and cleared land, in minsters and mills in streams in ponds in meadows and pastures in pannages and salt pans in sand banks and fisheries, in roads and ways and rights of hunting all beasts of the chase, in havens, in aeries of hawks and all other birds, in all liberties and profits pertaining to the same land. As witness these:—Christian the bishop, Robert his Archdeacon, Gilbert the chaplain, John his nephew, Thomas the clerk of Torpenhow, Robert the sheriff's-clerk, Robert son of Troite, Bernard le Fleming, William and Nicholas his nephews, Adam nephew of Robert son of Troite, Robert son of Sungeva, Ralf the clerk, of Carlisle, David son of Terri, Norman the hostage, Nicholas son of David, Augustine his brother, Ivo de Stoches, William son of Reinbold, Herbert son of Hugh the Marshal, William de Cantelu(p), Andrew de Dumfries, Henry son of Hodard, William the clerk of Lochmaban, Simon brother of Richard the Marshall, Gillecatfar, Gilbert his son, Gilmor Albanach, Gilcohel, Macherne, with many others.

This charter's greatest interest is, I think, its dating from

the transition period when the old Keltic[20] services to the sovereign and the superior lords were being changed into the feudal tenure of military service. Skene's history (*Celtic Scotland,* iii., ch. 6) has much dissertation about what went on during this change in Scotland. But it took place not only in Scottish but early English tenures, Anglo-Saxon and Anglo-Danish; and the analogies between the changes in Galloway and in Westmorland and Cumberland are best realised by comparing both.

The old Keltic services were Cáin (Chaan) and Conveth, Feacht and Sluaged. Cáin and Conveth were imposts on produce from land, which was grain from arable, and pigs and cattle from pasture. Cáin was the revenue of the sovereign (beyond that, I suppose, from his private demesne) for his general support and that of his regal position, his court and formal dignity. Conveth was a special application of this in addition, namely, supply for the King or his representative in the journeys taken from place to place within his dominions to hear pleas and give judgments and to carry on administration of law. It would now be described as supply for civil service, and the amount due from anyone liable to the tax was for maintenance and hospitality for the night or nights when the King's administrative court was in the neighbourhood of the payer. Like the Cáin, it was a current tax, but less in amount. The other services, feacht and sluaged, were in reality one in two names, the Latin equivalents of which were *expeditio* and *exercitus,* that is, defence of the realm or the King's service in attack of another sovereign. Put together they were called *servitium Scotticum.* In England they were called hosting and expedition. But I think "defense" can hardly refer to this.

The change to feudal tenure was to tenure on other terms than the payment of Cáin and Conveth; namely, to possession by duty of military service. In Cumberland and Westmorland this was termed cornage, and it carried with it not only

[20] I use the term Keltic as the general term of those races, which comprised the Cymry, the Gael, the Breton, and the Erse, without necessarily implying that all the usages discussed belonged to all alike.

homage and fealty to each immediate superior by one and other up to the chief lord, but a small payment made half-yearly in acknowledgment of the superior lord's right. But the old dreng tenures were not all changed to this in these two counties; some were carried on as socage tenures, that is, hereditary tenures held by payment of true rent, "alba firma," assayed silver. It does not follow that the owners of these were not liable to military service, but those owning in cornage held their land on the condition of military service only, and, I suppose, paid smaller dues on the strength of that. Both tenures were liable to a secondary tax as an intermittent demand called subsidy. The earlier English services were analogous to the Keltic; namely, the feorm parallel to Cáin and Conveth, and the fyrd, which was the expedition and hosting.

In the change to feudal service in Scotland, as I understand Skene, the transition was intervalled through the stage of feodiferma, and the feudal service only reached its climax in the times of the Balliols and the Bruces. The transition, feodi firma, feu-farm, was practically much the same as the socage holding of Westmorland and Cumberland, a perpetual rent for a holding which was heritable, but it was held *in capite*, and certain duties of liability to the expedition and the defence of the realm were attached.

Besides these services and revenues the sovereigns in England, and probably Scotland, had dues from tolls and such things as mines and saltworks and heriots and proceeds from courts of law and the goods of felons and outlaws, and the penalties exacted on a district for "murdrum" (homicide and blood letting): this last in Keltic seems to have been called *cro*. These dues were supplementary to the expenses of administration and of enforcing the orderliness understood as the King's peace. Whether all these belonged to the purely Gaelic part of Scotland I do not know, but Galloway was a borderland and coastland possessed by different races and dominations, Anglo-Saxon, Anglo-Dane, Norse from Norway probably, and the Hebrides and Ireland, and lastly from Normandy, and all this admixture with the original Gael was likely to result in

assimilation from something of all, and as the terms in these charters shew from the latest, Norman French.

In Huctred's charter, Conveth is not mentioned and Chaan has come to be a general word for tax or impost. For it has not only to include Conveth, but is applied to the payment for "cro." In the change which Huctred shows he was anticipating, it seems as if he expected the grant from the Scottish King of what in England would be called "sac and soc, and toll and team," and its accompaniments, as granted to the greater barons, amounting to extensive rights of jurisdiction and the profits of these; in which case he would not have to transfer these profits and pay the "chaan del cro" to the Scottish King.

This sets one thinking. In the charter of Gospatrik, which belonged to the region of the Strathclyde sub-kingdom, lying next to Galloway, the earl in possession was able to grant these to a holder under him; this, Gospatrik would do as a scion of the Scottish house, and as ruler of what was Cumbrian, the relics of the English side of Strathclyde. But Huctred's charter, though granting rights and liberties even in salt pans and the chace and aeries and havens (*i.e.*, tolls), as if almost a sovereign, makes no mention of the administration dues, and it looks as though up to that point the lords of Galloway possessed these only in a restricted way and could not grant them out, and were expecting extension of their power.

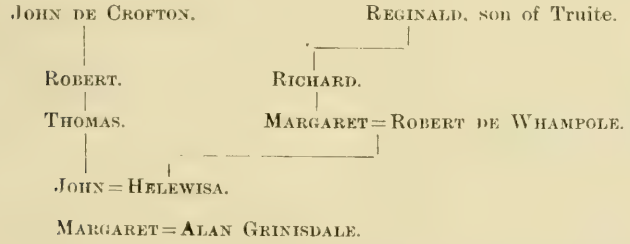
The expression "chaan del cro et de defense, ioan" is difficult. It seems at first to be in two languages, if not in three. "Del" coming in the first part suggests Norman French as one of these, but the "de" might be confusion with Latin. I have looked up Gaelic dictionaries in vain to find any word to answer to "ioan," and have come finally to the conclusion that, as in other cases of which I have now some proof, this charter must have been one of two copies, the one written for the grantor's custody and his heirs, the other for the grantees, and that the word ioan is a scribal error in copying out. I have found pretty certain evidence that grantors could not always have made sure that the contents of their charters, which most of them could not read,

were accurate in every particular, though the main points were made sure. And the word "ioan" takes the place of an evidently needed "tam diu:" probably "ioan" was written instead of "tam," and "diu" was missed. And as the word "cro" stands so clearly for the seigniorial claim to penalties for crime it should be possible to take "de defense" for the claim to the profits of granting defence and legal administration in the courts: these cases were always expensive as those of the appellant were, and implied profits for the rulers. And the whole intention of the sentence is that for these seigniorial profits which Huctred held as a grant from the King he was paying a toll, but hoped to be set free by having the grant as a franchise, and when that happened he would not exact the eight pounds of silver. From Skene and from the Holyrood chartulary I have been able to learn much, as well as from Sir Herbert Maxwell and from Agnew's *Hereditary Sheriffs of Galloway,* but nothing to elucidate this point.

Richard, son of Troite, to whom the charter was granted, was a brother of Robert, son of Troite, whose name Chancellor Prescott (*Register of Wetherhal*) reminds us occurs as Sheriff of Cumberland from 1158 to 1173. Richard's name appears in the Pipe Rolls of 5 Richard I. (1193-4); but it does not follow from that that he was living still, only that his debt had not been discharged. His son had seisin of Gamelsby in 10 Richard I., which makes his death before then certain. Denton in his "Accompt" shows that he had reason to assume or believe relationship between the families of de Troite and de Karliol. And we may be certain that there was a marriage between them, though we may not be able to give the particulars. A descendant of Hildred de Karliol, though probably not of de Troite, was Cristina de Ireby, wife of Robert de Brus (Prescott, p. 147). But a point which strikes me as worthy of notice is that apparently Tructa (Troite) is a woman's name, and if so the instance seems one of the survival of the Keltic custom of carrying down remembrance of relationship, in amongst the predominating Norse and Norman custom of patronymics which surrounded it and extinguished it. Nor is it the only instance I have met with.

Of the witnesses, Christian was Bishop of Whitherne from 1154; he died in 1186 (Prescott, *Wetherhal*, p. 85). Norman "obses" whoever and whatever he was witnessed also a charter of Adam, son of Swain, giving Kirk Andrew to Wetherhal, as also did Augustine, son of David, whose brother attests here (Prescott, p. 311). David, son of Turri, occurs as a donor of a Galloway church to Holyrood in a confirmation of the gift by John, Bishop of Whitherne, and one by William King of Scots to Holyrood (*Charters of Holyrood*, pp. 39, 40). John became Bishop of Whitherne in 1189. Gilbertus capellanus witnesses a charter of Bishop Christian confirming the gift of Dunrod church to Holyrood (*Charters of Holyrood*, p. 20). Gillemore Albanach is witness to a gift by Uchtred, son of Fergus and Gunhild, of Torpenneth church to Holyrood (*ibid.*, p. 20). Gillecatfar collectaneus Uchtredi (foster brother of Uchtred) is witness to Uchtred's gift of the church of Colmanele to Holyrood (*ibid.*, p. 19). Bernard le Fleming (Flandrensis) is mentioned by Denton (Accompt. 142) as owner of Leversdall in Gilsland.

The way in which the Denton family acquired this charter and also that of Edward de Brus is given by a pedigree amongst the remaining Denton MSS., I think in the handwriting of one of the Dentons :—



Some of the Grinisdale property was acquired either immediately or after passing through other hands by the Denton family. The Holm Cultram charter came through Whampole, the Huctred charter from de Truite.

III.—CHARTER OF EDWARD DE BRUS, LORD OF GALLOWAY, TO HOLM CULTRAM.

Edwardus de Brus, dominus Galwidie universis Christi fidelibus [visuris] vel audituris salutem in Domino sempiternam. Noveritis me pro salute anime mee et omnium antecessorum et successorum meorum dedisse remisisse et omnino pro me et heredibus ac assignatis meis quietum clamasse religiosis viris, Abbati et Conventui de Holm [Cultram] [et] eorum successoribus illam annuam firmam decem librarum sterlingorum quam reddere solebant d[ominis] d[e] B[otil] [pro terris] suis quas habent apud Kirke Wynny in Galwidia in liberam et perpetuam elemosinam ex d[onacione et] concessione Rolandi filii Huctredi et aliorum donatorum: ita quod nec ego dictus Edwardus nec aliquis heredum aut assignatorum meorum nec aliquis alius in dicta annua firma aliquid de cetero exigere potuerimus nec vendicare. In cujus rei testimonium hoc presens scriptum sigilli mei impressione roboravi.

Edward de Brus, Lord of Galloway, to all Christ's faithful who shall see or hear this, everlasting health in the Lord. Know ye that I, for the health of my soul and of the souls of all my ancestors and successors, have granted, remitted, and entirely quitclaimed for myself my heirs and assigns, to the religious, the Abbot and Convent of Holm Cultram and their successors that yearly payment of ten pounds sterling which they were wont to make to the lords of Bothel[21] for their lands which they have at Kirkewynny [Kirkgunzeon] in Galloway, in free and perpetual alms, by the gift and grant and concession of Roland son of Huctred and other donors: So that neither I, the said Edward, nor any of my heirs or assigns nor any one else will be able to make any claim henceforth in the said yearly payment. In attestation of which I have fortified this present writing with the impression of my seal.

The seal has the early Brus shield, a saltire and chief.

The text in the gaps is restored by the great kindness of Chancellor and Archdeacon Prescott from a copy of the Holm Cultram Chartulary in the British Museum. This charter is not given in the Carlisle copy; but Huctred's charter in that, Chancellor Prescott tells me, grants the Kirkwynny lands subject to the £10 payment to the lords of Botil. This looks as though the lords of Bothel (or Buittle) held lands in Kirkgunzeon out of which Uchtred's grant was made, and that the

[21] Or, less probably, Buittle.

payment reserved something of their rights. The means by which this charter came into possession of the Denton family I have already alluded to.

IV.—Letter Patent of Edward de Balliol, King of Scots from 29 Sept., 1332 till 20 Jan., 1356, Containing a Grant to John de Denton.

Edwardus Dei gratia rex Scottorum omnibus ad quos presentes litere pervenerint salutem. Sciatis nos dedisse concessisse et hac presenti carta nostra confirmasse dilecto valetto nostro Johanni de Denton pro bono et laudabili servicio suo nobis impenso et impendendo forestam de Garnery que fuit Willi Gasguensis episcopi cum pertinentiis inimici et rebellis nostri et que per forisfacturam ejudem Episcopi ad manus nostras jam devenerit, habendam et tenendam eidem Johanni et heredibus suis de corpore suo legitime procreatis de nobis et heredibus nostris per servitia inde debita et de jure consueta, ac etiam secundum legem et consuetudinem regni nostri Scotie in valore 20 marcarum per annum, et si quid ultra extentam predictam inveniatur nobis et heredibus nostris remaneat. Ita tamen quod dicta foresta cum pertinentiis non sit de corona seu hereditate nostra nec alicui vel aliquibus ante hec tempora per nos donata, ac salvo jure cujuslibet. In cujus rei testimonium huic presenti carte nostre sigillum nostrum privatum apponi fecimus. Datum apud insulam de Estholium xxi die Sept, anno

Edward by the grace of God King of the Scots to all to whom the present letters come, health. Know ye that we have given and granted and by this present charter of ours have confirmed to our beloved servant John de Denton for his good and praiseworthy service, given and to be given, the forest of Garnery which with all its belongings was possessed by William, bishop of Glasgow, an enemy and rebel against us, and which by forfeiture of the same bishop came into our hands: to be had and held by the same John and the heirs of his body lawfully engendered, of us and our heirs by the services therefrom owed and customary, and also according to the law and custom of our Kingdom of Scotland, in value of 20 marks yearly, and if any value beyond this is discovered it shall remain to us and our heirs. Provided also that the said forest with its belongings shall not be crown possessions nor hereditary nor shall have been granted by us before this to any one or more persons; and reserving every one's right. In attestation of which we have caused our privy seal to be affixed to this present charter. Given at the isle of

regni nostri sexto decimo.

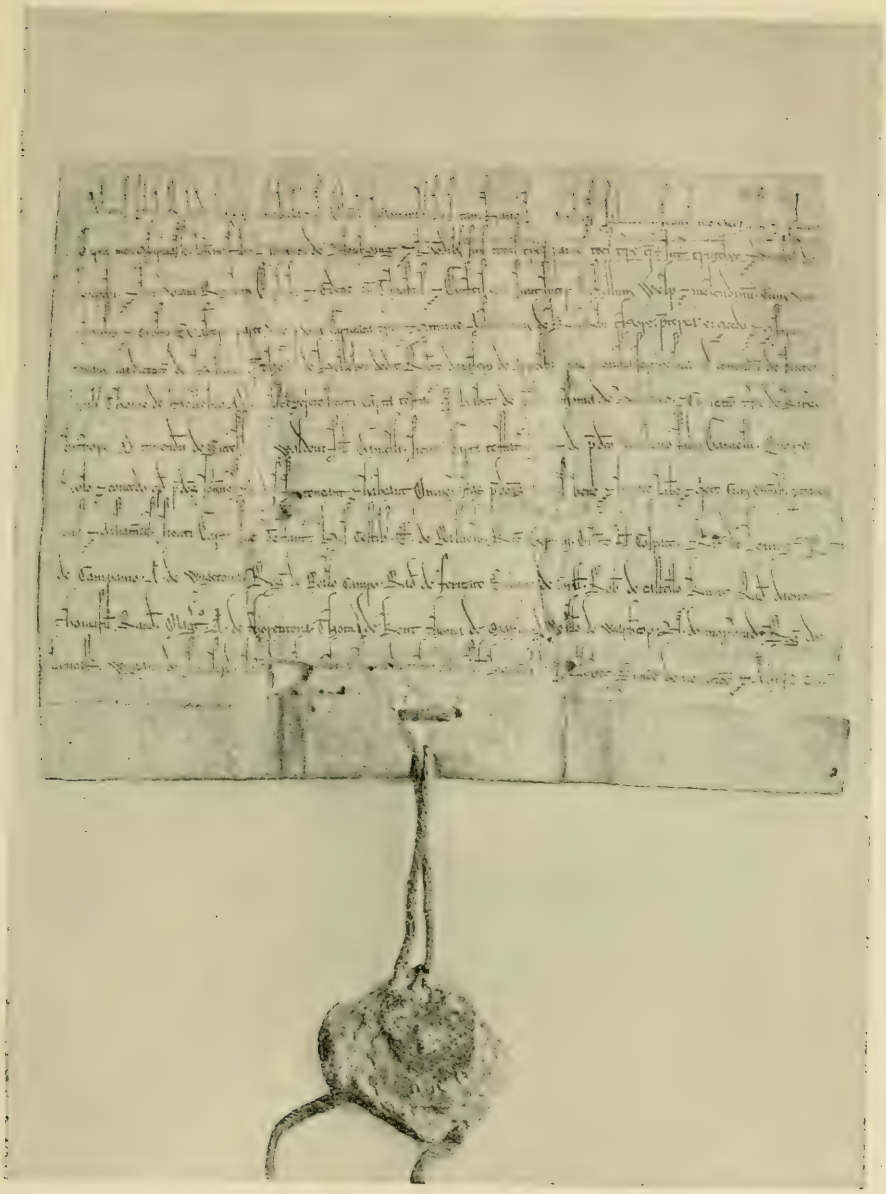
Eastholm on the 21st of September in the 16th year of our reign [1347].

A fine seal; the Scottish lion and bordure, and the inscription "Edwardus dei gratia rex Scotorum."

V.—CHARTER OF ALAN, SON OF ROLAND, LORD OF GALLOWAY AND CONSTABLE OF SCOTLAND, TO JOHN DE NEWBIGGING; OF DATE BETWEEN 1199 AND 1225.

Alanus filius Rolandi Scotie Constabularius Omnibus hominibus suis tam Franciis quam Anglicis, Salutem. Sciatis me confirmasse Johanni filio Laurantii de Neubiging et heredibus suis totas tres partes tocius terre que est inter Trutebec et divisas de Sourebi et inter viam regalem Carleoli et Edene cum thoftis et croftis qui sunt inter Castellum Welp et molendinum, cum uno tofto et crofto ex altera parte vie, pro una carucata terre, et commune aisiamentum de Kirkebi Thore. Preterea ei concedo et confirmo totam medietatem de Hellebec quam Thomas de Hellebec dedit Roberto, dapifero de Appelbi, cum Dionisia sorore sua ad tenendum de successoribus Thome de Hellebec adheo libere et quiete sicuti carta testatur quam habet de predicto Thoma de Hellebec et carucatam terre de Kirkebi Thore ad tenendum de successoribus Waldevi filii Gamelli sicuti carta testatur quam habet de predicto Waldevo filio Gamelli. Quare volo et concedo quod predictus Johannes et heredes sui teneant et habeant omnes istas predictas terras bene et in pace libere et quiete

Alan son of Roland, Constable of Scotland, to all his men, French as well as English—health. Know ye that I have granted and by my present charter have confirmed to John son of Laurence de Newbigging and his heirs the whole of the three parts of all the land which is between the Troutbeck and the boundaries of Sowerby and between the King's highway to Carlisle and the Eden, together with the tofts and crofts which are between Whelp's Castle and the mill, and one toft and croft on the other side of the road; (to be held) as 1 carucate of land: and the easement (rights) of common of Kirkby Thore. I concede besides and confirm the whole moiety of Helbeck which Thomas de Helbeck gave to Robert, seneschal of Appleby with Dionisia his sister, to be held of the successors of Thomas de Helbeck as freely and securely as the charter which he holds of the aforesaid Thomas de Helbeck testifies: and the carucate of land at Kirkbythore to be held of the successors of Waltheof son of Gamel, as the charter which he holds of the aforesaid Wal-



CHARTER OF ALAN, SON OF ROLAND.

Photo by Reeds, Penrith.

cum omnibus pertinentiis et aisiamentis. sicuti carte sue testantur. Hiis Testibus. E. de Ballielo, Ric. Gernun, Gilberto filio Cospatricii, Ric. de Levington, Rad. de Campano, A. de Wigetona, Rog. de Bello Campo, Rad. de Feritate, Eudone de Carll., Rob. de Castello Kairuc, Rad. Daencurt, Thoma fil Rand., Magro A. de Thorentona, Thoma de Kent, Thoma de Morlund, Willo de Warth(e)cop, H. de Morlund, Rog. de Loncastra, Wigano de Saunford, Joh. de [ ]nebi, Thoma de Tibai, W. fil. Hamonis de Hellebec, Simone de venatione et aliis.

theof son of Gamel testifies. Wherefore I will and grant that the aforesaid John and his heirs shall hold and have all the aforesaid lands in good and peaceful tenure free and undisturbed, together with all belongings and easements just as the charters testify. As witness these. E[ustace] de Balliol, Richard Gernon, Gilbert son of Cospatrick, Richard de Levington, Ralf de Campano, A. de Wigton, Roger de Beauchamp, Ralf de Feritate, Eudo de Carlisle, Robert de Castle Carrock, Ralf Deyncurt, Thomas son of Randolf, Mr A. de Thornton, Thomas de Kent, Thomas de Morland, William de Warcop, H. de Morland, Roger de Lancaster, Wigan de Sandford, John de [ ]by, Thomas de Tebay, W. son of Hamo de Helbeck, Simon of the hunt and others.

Whelp's Castle in Kirkby Thore is mentioned by Camden as " Wheallep-castle " in *Britannia* (edition of 1600) and is also marked on the map of Westmorland by Moll. Hodgson, born at Swindale, 1780, in his *History of Westmorland* says it was also called the Burwens, and it was, I suppose the remains of the Roman Castra there, probably made use of by Welp, father of Gamel, whose son Waltheoff is one of the owners mentioned in the charter, whom it is tempting to think of as a descendant or of the family of one of the men mentioned in Gospatrik's charter who was settled so little distance away. And the Castra served as his chief messuage on the Roman road, known it seems as the *via regalis*, the highway across North Westmorland to Carlisle.

As to the witnesses, E. de Balliol was, I think, the earlier Eustace; Richard Gernon was the husband of Joan de Morville, daughter of Hugh de Morville, forester of Cumberland from 6 Henry II. to about 4 John. Gilbert, son of Gospatrik

(son of Orm), was Gilbert de Southaic. Richard de Levington succeeded Adam de Levington in 1211. A. de Wigton is Adam de Wigton, who died 1225 (Prescott's *Wetherhal*, p. 146). Roger de Beauchamp, second husband of Grecia, whose first husband was Thomas, son of Gospatrik, son of Orm. Ralf de Feritate was son of Gamel le Brun or Brunneson. Eudo de Carliolo was son of Adam (Prescott, p. 150). Robert de Castel Cairock, the first Robert of the name (Prescott, p. 103). Ralf Deyncurt was son of Gervase, owner of Sizergh. Thomas, son of Randolf, may possibly be a son of Randolf de Dacre, mentioned in the Pipe Roll of Cumberland of 1212. Thomas de Morland was an incumbent who remained there as late as 1230. William de Warcopp, brother possibly of Alan of the Pipe Roll of 1198. W., son of Hamon de Helbeck, possibly Wido, whose name occurs in the Pipe Rolls of King John.

The date of the charter must be between 1199 and 1225, the succession of Alan and the death of Adam de Wigton. This Thomas de Helbeck of the charter, the first we know of who owned that name, would not have granted a moiety of Helbeck to a daughter on her marriage if he had a son to be his heir, but the terms of the grant leave his "successors" in possession of the manorial rights though they would not have the immediate profits and usufruct of this moiety. The arrangement ultimately would be much like the later Musgrave and Helbeck arrangement, to which I hope to come later; in this the Musgrave manor continued in Musgrave manorial ownership and did not go down to the Helbeck descendants of the Musgrave heiress who married the later Thomas de Helbeck. It is possible that Hamo was brother of the first Thomas, and that through Wido, his son, the Helbeck descent was carried on.

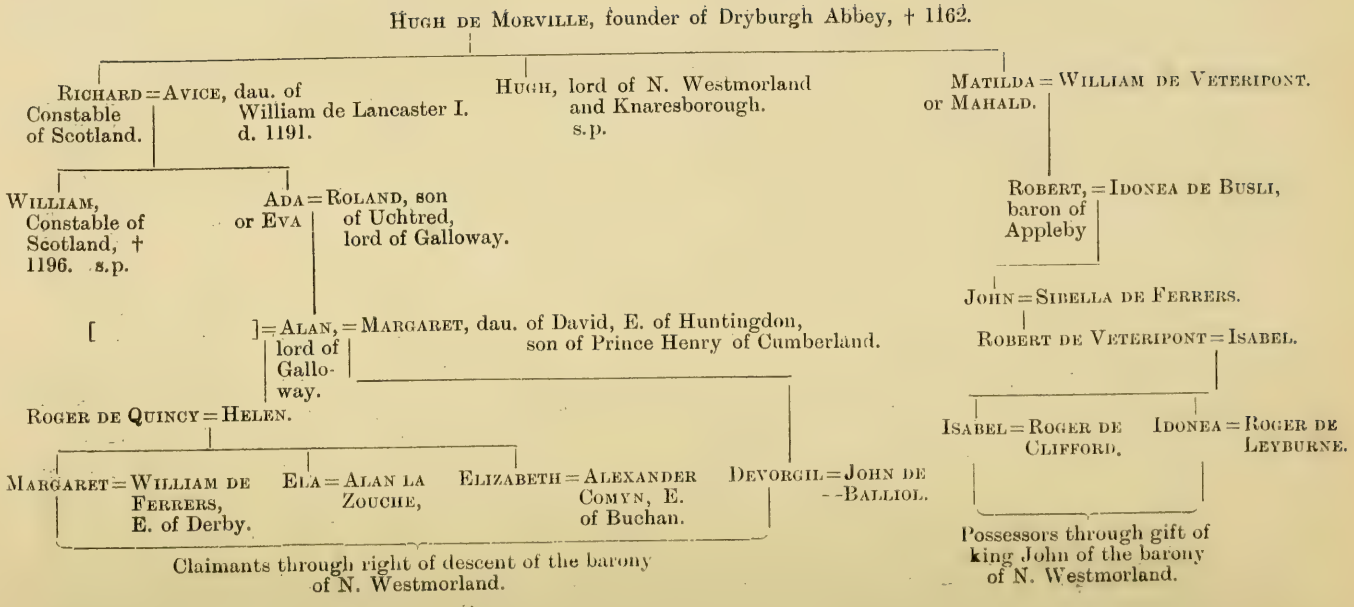
THE GALLOWAY LORDSHIP OF NORTH WESTMORLAND.

This charter of Alan, son of Roland, who succeeded his father as Constable of Scotland in 1199, which Mr Dayrell Crackenthorp has most kindly had photographed for publication, has an especial interest, inasumch as it is an overlord's confirmation of grants of lands made by two of the manorial

lords who were his feoffees to a third manorial lord also his feoffee, and is one of those evidences of the exercise in action of rights of overlordship which were required in the Inquests of Edward I. detailed in de Quo Warranto to be shown as proof of use. This lordship over North Westmorland I was able only to suggest as being an extreme probability in Cumberland and Westmorland *Transactions*, N.S., vol. xii., 384-5, there being little further evidence of it then than an entry in Assize Roll 981 of a statement of claim to it, with no reasons shown in the Roll and no pleadings recorded. It was the claim to that barony by Margaret de Ferrers, Ela de la Zouche, Elizabeth Countess of Buchan, and Devorgil, wife of John de Balliol, against Isabel, wife of Roger de Clifford, and Idonea, wife of Roger de Leyburn, daughters of Robert de Veteripont.

I can now venture from this charter to give it its name as the Galloway Lordship of North Westmorland. Alan, lord of Galloway, the grantor, is shown as exercising this right, which he was able to do as heir to his mother, Eva, daughter of Richard de Morville; and through Alan the claim set forth on p. 385 of the volume just mentioned came, and my provisional scheme of the Morville descent receives its justification thereby. Later on, after Alan's time, the rights of his descendants in Westmorland seem to have dwindled down to a solitary manor, Mauds Meaburn, where the shrunken lordship was carried on in a sort of purparty between one of them and the Veteripont as late as 6 Edward I., 1278. But there is now sufficient proof of the existence of this lordship, few though the evidences are. They came down in the end to such instances as these : :—A claim by John le Fraunceys (C. & W. *Transactions*, N.S., xi., p. 321) to be released from de Balliol service which ought to be done by de Veteripont intermediate between him and Balliol (*Curia Regis Roll*, 142, membrane 18d); and the Inquisitiones post mortem of Gilbert le Fraunceys (a) in 6 Edward I. viz. : C. Edward I. 18(9) and (b) C. Edward I. 33/8 of 11 Edward I. In one of these de Balliol is recognised as in part, in the other as wholly, the overlord.

And the unsettlement of things by King John's action in granting to the Veteripont husband of a Morville, who was not the right Morville heir, the lordship in the guise of hereditary


Hugh de Morville, founder of Dryburgh Abbey, † 1162.
Richard = Avice, dau. of William de Lancaster I. d. 1191.
Constable of Scotland.
Hugh, lord of N. Westmorland and Knaresborough. s.p.
Matilda or Mahald. = William de Veteripont.
William, Constable of Scotland, † 1196. s.p.
Ada or Eva = Roland, son of Uchtred, lord of Galloway.
Robert, baron of Appleby = Idonea de Busli,
John = Sibella de Ferrers.
[ ] = Alan, lord of Galloway. = Margaret, dau. of David, E. of Huntingdon, son of Prince Henry of Cumberland.
Robert de Veteripont = Isabel.
Roger de Quincy = Helen.
Isabel = Roger de Clifford.
Idonea = Roger de Leyburne.
Margaret = William de Ferrers, E. of Derby.
Ela = Alan la Zouche,
Elizabeth = Alexander Comyn, E. of Buchan.
Devorgil = John de -Balliol.
Claimants through right of descent of the barony of N. Westmorland.
Possessors through gift of king John of the barony of N. Westmorland.

shrievalty may possibly be the explanation of the series of actions in law courts, and of those Final Concords which we find recorded as if to give legal assurance to Veteripont ownership. For instance, in 19 Henry III. between Hugh and Gilbert de Cabergh and John de Veteripont for common of pasture; between James de Morton and John de Veteripont for 30 acres of woodland; between Robert de Helbeck and John de Veteripont for the manor of Sowerby and 60 acres in Helbeck; between Thomas de Musgrave and John de Veteripont for 30 acres in Murton; and between Thomas and Agnes Boet and John de Veteripont for 9 acres of land in Waitby.

Other claims and agreements are mentioned by Dodsworth and Hodgson; and we are reminded of the series of similar cases which followed the grant by William de Lancaster the last, to his half brother Roger, not his heir and not of de Lancaster blood, of the barony of Barton in Westmorland, as will be seen in a future paper.

Incidentally, working at this charter has thrown light on a matter mentioned in C. & W. *Transactions*, N.S., xi., 321, which was unexplainable then. John le Fraunceys (Assize Roll 1046 of 1251 A.D.) held land also of John de Balliol in Leicestershire, and held a moiety of the manor of "Soureby in Farnes in Galewayth." From the Chartulary of Holyrood, p. 40, it turns out that there was a deanery of Farenes in Galloway, whose dean William witnesses a confirmation by Bishop John of Whitherne of advowsons granted to Holyrood, and it is easy to see from this that Soureby in Farnes was the modern Sorbie in Wigtownshire. This is the only record of a le Fraunceys holding in that county, and we can now fairly add this to that of Castle Sowerby in Cumberland as held by that family. These, John de Balliol's possessions, derived from his Scottish descent, in three different parts of Great Britain came to him in different ways. The Leicestershire possession was almost certainly part of the inheritance of Devorgil, his wife, by her descent from David, Earl of Huntingdon, grandson of David I., King of Scotland; the Galloway portion through her descent from Alan, lord of Galloway; and the Westmorland portion through her descent from the Mor-

ville family, whose heiress, Roland, son of Uchtred, lord of Galloway, had married.

I append (p. 262) a portion of the de Morville pedigree, which is necessary to make clear the descent and the claim.

For leave to publish matter contained in this paper, my best thanks are due to the Earl of Lonsdale and to Mr Dayrell Crackenthorpe; also to Mr W. Little, Mr R. Robinson, and Mr R. H. Bailey for kindnesses and help.

OBITUARY.

During the year the Society has lost by death fifteen members, four whilst on active service—Messrs W. Blacklock, V. Cubit, T. D. Simpson, and G. Ramsay Thomson. Of the remainder, two had been members for 41 years, two had been Honorary Members since 1878, and two had been distinguished Corresponding Members. Many of them had been active and contributing members. There names were: Dr Joseph Anderson, W. Chalmers, W. Bell Common, W. A. Dinwiddie, J. Dunn, J. Harvey Brown, J. Houston, A. Tweedie, and Professor Rhys.

Death has also removed two members who rendered conspicuous service to the Society. Mr JAMES M'ANDREW, Fellow of the Educational Institute of Scotland and Honorary Member of the Edinburgh Field Naturalists' and Microscopical Society, was a most zealous botanist, and added materially to our knowledge of the Flora of Galloway. For thirty-two years he was headmaster of Kells parish school, in the burgh of New-Galloway; and while discharging the duties of that responsible position most efficiently, and in a manner which did much to stimulate and develop the intellect of his pupils, he applied himself with great diligence to the pursuit of his favourite hobby. It was his habit to devote his summer holiday to some special district. And the fruits of his well directed and intelligent observations were periodically contributed to the *Transactions* of this Society. He died on

7th July, 1917, in Edinburgh, where his later years had been spent, at the age of eighty-one.

Mr James Lennox, F.S.A., Scot., who passed away on 4th November, 1917, at the age of sixty-one, had filled the highest municipal offices in Dumfries. The son of a Provost, he was himself Chief Magistrate from 1908 to 1911; and he had served on the School Board, the Dumfries Educational Trust, the Nith Navigation Trust, the directorate of the Dumfries Savings Bank, and other public bodies. He was also Provincial Grand Master of the Freemasons in Dumfriesshire; and in the cycling world his was one of the best known names, because of his early feats of long distance riding and his administrative position at a later period in the official circle of the Cyclists' Touring Club. A many-sided man, he took also a keen interest in archæology. His contributions to our *Transactions* included an account of excavations at the business premises of his firm, which disclosed what was believed to be the foundation of the high altar of the Church of Greyfriars' Monastery; a history of Dumfries Savings Bank; a survey of the ancient castles and fortlets in Dumfriesshire, prepared as a guide to the photographic section, which was formed under his direction to form an illustrated index of such antiquities for the county. His little book on *The Scottish Borders of Galloway* is a guide valued by the road tourist of cultured taste.

EXHIBITS.

21st December, 1917.—Mr R. C. Reid—An Old Dark Green Glass Flagon, 9¼ in. high by 14½ in. circumference, with embossed stamp on the side bearing the impression, "T. Crosbie, Dumfries, 1789."

PURCHASES.

11th March, 1918.—At the Sale of the Library of the late Provost J. Lennox—MS. Minute Book of the Incorporation of Glovers and Dyers in Dumfries, 5th June, 1650—15th September, 1752; bound in cloth, 7¼ in. by 5¾ in.

MS. Baron Court Book of the Nithsdale Estates, 13th August, 1757—27th June, 1794; folios, 157, incomplete; bound in leather, 12¾ in. by 8 in.

22nd March, 1918.—*Melrose Regality Records*, Vol. I and II. (Scottish History Society), edited by Mr C. A. Romanes, C.A.

PRESENTATIONS.

12th April, 1917.—Mrs Alexander Thomson, Castle Street, Dumfries—An Herbarium, collected by the late Dr A. Thomson, which had obtained a prize for him at College, the plants being all classified and in perfect order. A typewritten catalogue has been prepared by Mr G. M. Stewart.

21st December, 1917.—Mr R. C. Reid—Framed Photographs of the following Dumfries Worthies, 1885:—W. Pool, Dr F. Grierson, W. Thomson, J. Fryer, Sir W. Broun, J. Elder, W. Gregan, Rev. J. R. Duncan, R. Wilson, C. E. Hogg, W. F. Johnston, G. Dunbar, E. M'Quhae, Rev. D. L. Scott, W. Rae, J. Gordon, J. Coupland, Rev. J. Torrance, T. Costin, A. Tibbetts, J. Shearer, J. Johnston, J. Clark, L. V. Razaloo, J. Rorison, W. Lowther, A. Malam, J. T. Scott, W. J. Alder, W. Lockerbie, R. Muir, A. Ashley, G. Thomson, P. Murphie, J. Lockerbie, Rev. D. Purves, G. Reid, and one other.

Mr R. C. Reid—Two Bound Volumes of the *Dumfries Times*, 1833-38.

Mr Francis Armstrong—A Compilation of Papers *re* Disruption, Sermons, etc., in paper covers, 1845.

The Executors of the late James M'Andrew—His MS. Notes *re* Plants and Mosses, which have been published in the *Transactions*. Bequeathed by will.

Mr R. C. Reid—Edgar's *History of Dumfries*, 1915; *Parish Lists of Wigtownshire and Minnigaff*, 1684, Scots Record Society; *Registers of Births, Deaths, and Marriages, St. Andrews*, 1722-87, *ibid.*

Mr G. W. Shirley—*Growth of a Scottish Burgh*.

M. Charles Janet—Various French Pamphlets and Papers on Botany, 1912-16.

Mr James Calligan, Dumfries—A fine specimen of an Imperforate Stone Axe, found in the cave at Maidenbower Craig, 8 inches long, $1\frac{5}{8}$ thick, and $2\frac{3}{4}$ at the widest part. The broad end is ground down to a rounded cutting edge, while the other end tapers to a point. The axe was found embedded in the soil, the sharp point alone being visible.

22nd February, 1918.—Mrs Rogerson, Marchmount—Perforate Stone Axe, $11\frac{1}{2}$ inches long, 3 inches broad, and 3 inches thick, found whilst digging in the garden at Marchmount.

Mr R. C. Reid—Part of a Stone Implement, probably an axe, dug up whilst replanting a hedge at Cleughbrae; 4 inches long, $4\frac{1}{4}$ broad, $2\frac{1}{4}$ thick. Framed and Glazed Coloured Plan of Dumfries and Maxwelltown, by James Halliday, 1886. *The Practical Naturalist's Guide*, by J. B. Davies, 1858. *The Ferns of Wakefield*, by T. W. Gissing, 1862.

Mr H. Cavan Irving, Burnfoot—Two Pieces of Oxidised Iron, from the collection at Burnfoot, one of the pieces having part of a Roman pot attached to it. The specimens were submitted to the National Museum of Antiquities, and Mr A. O. Curle expressed the opinion that the nuclei of these lumps have been pieces of bog iron, in one case at least, collected in a Roman pot. As in the course of centuries the iron oxidised, the oxide spread through the soil which had filled up the pot, and subsequently through the cracks in the vessel, as it now is in the bottom. There is no indication that the iron ever found its way into the pot in a molten state, or that it was melted in it, otherwise the material would have undergone a change and have shown signs of the action of the great heat which would have been necessary.

The Executors of the late Provost Lennox—The following seven items:—

(1) Charter by Robert Douglas, provost of the collegiate church of Lincluden, with consent of the prebendaries of the said church and chapter for this purpose assembled, by which he grants in feu to John Johnstoun in Nunholm and Cristina Makkennand, his spouse, and to the longer liver in conjunct fee, and to the heirs procreated or to be procreated between

them, whom failing, to the heirs whomsoever of the said John, all and whole the 4 merkland of Nunholm, of old extent, with the pertinents, lying between the lands commonly called Dowdykes, belonging to the lord of Carnsellach on the east, the lands commonly called Merche Hill, belonging to the town of Drumfress, and the lands of the lord of Conhaith on the south, and the water of Nyth on the west and north within the parish and sheriffdom of Drumfress, to be held of the granters and their successors under reservation of the fishings on the water of Nyth and of their right of drawing nets on the lands and laying them out, and of *cymban assigere*, for an annual rent of 7 lib. 11s 2d, one boll of oatmeal and four capons, that sum being made up of the previous rent, with an augmentation of 7s 9d, payable at two terms, viz., the feasts of Pentecost and S. Martin in the winter, one boll measure of Nyth and the four capons at the feast of the Purification of the B.V. Mary, with a duplicand payable by the heirs of the said John at the first year of entry. The charter contains a prohibition against alienation of the said lands or any part of them by the granters or their heirs without the consent of the granters or their successors; and a precept addressed to Stephen Palmer and Robert Makkymes to give sasine to the granters. Sealed with the common seal of the chapter of the said church at the college of Lincluden on 25th January, 1564-65, and signed by Robert Douglas, provost of Lincluden, Sir John Lauder, John Mortoun, Archibald Menzeis, Marcus Carrutheris, Sir John Baty, and Sir John Rig, all prebendaries there. Seal intact, in good condition.

(2) 24th February, 1554-5.—Charter by Thomas, perpetual commendator of the Monastery of Haliwode and the convent thereof of the Order of Premonst, in the diocese of Glasgow, on the narrative that the melioration of the lands, the planting of trees, etc., was in accordance with public policy, and beneficial to the monastery and its tenants, with the assent of the chapter assembled granted in feu to Quentigern Maxwell in Steilstone and Elizabeth Cunynghame, his spouse, and to Hugo Maxwell, their son, and the heirs of his body, whom failing to George, his eldest son, the 20s lands of Steilstoun of old extent, with the pertinents, lying in the barony of Halywode and sheriffdom of Drumfres, for the annual payment of 2½ merks, to be held of the granters and their successors, under reservation of mills, multures, and sequels. Witnesses—Robert Maxwell of Portrack, Amer Maxwell [ ], Gilbert Grier, Sir Andrew Macall (? Mychell), chaplain, and Master Cuthbert Craig, notary. Signed—Thomas, Commendator of Halivode, Thomas Roxburgh, William Hanying, ——— Welche, and one other whose name is illegible.

(3) 3rd August, 1576.—Instrument of sasine narrating that Hugo Maxwell in Steilstoun passed into the presence of the

venerable father in Christ, Commendator of his Monastery at Haliwode, and there with all befitting humility and reverence resigned for himself and his heirs the 20s lands of Steilston and the 10s land of Kilnes, extending in all to a 30s land of old extent with the pertinents, lying in the parish of Haliwode and sheriffdom of Drumfres, into the hands of the said venerable father as superior, in favour of John Maxwell, his son and heir apparent, and his heirs and assignees, reserving to himself the free tenement of the said lands for all the days of his life, on which resignation thus made the said venerable father delivered the said lands into the hands of John Welch in Burnefute, procurator, and in name of the said John Maxwell in fee and heritage. Witnesses—John Kirkhauche in Bogrie, Robert Maxwell in Fourmerkland, Arthur Fergussoun in Drumcrosche, Cuthbert Amwligane and Adam Patersone.

(4) 14th April, 1609.—Instrument of sasine narrating that Thomas Greirsoun of Laggane, bailie of Charles Maxwell, son of umquhile Robert Maxwell of Kirkhous, by virtue of a precept of sasine [addressed to him and contained in a charter made by the said Charles Maxwell, for giving sasine to John Lindsay, son of umquhile James Lindsay of Wauchope, his heirs and assignees, without reversion, of the lands underwritten, dated at Drumfres, 20th November, 1607. Witnesses—Robert Maxwell, brother of the said Charles Maxwell, James Maxwell, son of John Maxwell of Kirkconnell, Thomas Greirsoun of Swyre, Herbert Cunynghame, notary, and George Maxwell, Nathir Laggane] gave sasine to the said John Lindsay of the lands of Nathir Laggane of old extent with the pertinents, formerly occupied by John Gourlaw, lying in the parish of Dunscore and sheriffdom of Drumfres. Witnesses—William Greir in Laggane, Thomas Cunynghame there, George Maxwell, writer, and James Paine in Drumfres.

(5) 9th June, 1620.—Charter of ratification by Thomas, Earl of Melrose, in favour of Thomas Greirson, of the merkland of Overlagane in the parish of Dunscore. The document is almost illegible, but contains a precept directed to John Greirson of Killielagow and a reference to the late William Smith. The reddendo is 28s 4d. Signed at Edinburgh by the granter, whose seal in good order is appended. Witnessses—Mr James Linton, David M'Culloch, and John M'Cartney.

(6) 14th August, 1710.—Certified extract from the Council books of Dumfries of the admission of Walter Neilsone, merchant, son-in-law to the deceased William Neilsone, late Dean of the burgh, as freeman burgess.

(7) Fragment of the Great Seal of Scotland.

14th March, 1918.—Mr C. A. Romanes, C.A.—*Melrose Regality Records*, 1547-1706, Vol. III. (Scottish History Society, 1917).

18th March, 1918.—Mr P. W. Adams—*A History of the Adams Family of North Staffordshire*, 1915.

ABSTRACT OF ACCOUNTS

FOR YEAR ENDING 30th SEPTEMBER, 1917.

I.—On Account of Capital.

To Sum Invested in 5 per cent. War Loan		£218	10 0
To Sum on Deposit Receipt		17	12 0
	£236	2	0

II.—On Account of Revenue.

CHARGE.

By Balance on hand from last Account	£45	4	7
Annual Subscriptions—2 at 7s 6d; 229 at 5s; 17 at 2s 6d	60	2	6
Donations (Sir Herbert Maxwell, Bart., £10), etc. ...	11	5	0
Transactions sold	3	15	0
Interests on Investments, less Tax	9	14	2
	£130	1	3

DISCHARGE.

Rents and Insurance ... ... (Proportion of Property Tax not included)	£7	12	0			
Books bought, including Printing of *Transactions*	41	3	0			
Stationery and Advertising	5	16	6			
Miscellaneous	6	19	10			
				61	11	4
Cash in hand				£68	9	11
				£68	9	11

Audited and found correct.

(Sgd.) BERTRAM M'GOWAN, Auditor.

25th March, 1918.

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